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THE
SHIPPING WORLD
YEAR BOOK.



EDITED BY MAJOR JAMES
PORT DIRECTOR OF THE WORLD
LINES OF ALL NATIONS, ETC.

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ALEXANDRA DOCKS, NEWPORT, MON.

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J. S. ADAM, Secretary.

Offices: 60, GRAVECHURCH ST., LONDON, & ALEXANDRA DOCKS, NEWPORT, MON.

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BUTE DOCKS, CARDIFF.

Proprietors	THE BUTE DOCKS COMPANY.
Chairman	THE MARQUESS OF BUTE, K.T.
General Manager	SIR WILLIAM THOMAS LEWIS.

DOCK ACCOMMODATION.

NAME OF DOCK, &c.	AREA IN ACRES.	DEPTH OF WATER ON CILL.	
		SPRING TIDES.	NEAP TIDES.
Bute West Dock	19½	28 feet 9 inches	18 feet 9 inches
Bute East Dock	46½	31 " 9 "	21 " 9 "
Roath Basin	12	35 " 9 "	25 " 9 "
Roath Dock	33	35 " 9 "	25 " 9 "
Timber Floats.. .. .	28	{ Six to eight feet, with railway communication from alongside to all parts.	
Graving Docks and Floating Docks.. .. .	Nine at work and one more in course of construction, some capable of docking the largest vessels afloat.		

The Bute Docks are replete with **Machinery and Appliances** of the most improved type. Movable Coal Staiths and Movable Cranes are used, whereby Coal, Iron Ore, &c., can be shipped and unshipped from two or more hatchways at the same time.

The Roath Dock, which was opened on 24th August, 1887, will accommodate the largest sized vessels, and has excellent provision for an **Import and Export Trade**. The London and North Western, Midland, and Great Western Railways, in addition to the local Railways, have direct communication from the Ship's side. There is upwards of 7,000 feet of quay space, with ample depth, available for **Deal Yards, &c.**, and Storage of **other Goods, Warehouses** and **Transit Sheds** are being erected for the Storage of **Provisions** and other valuable articles.

Cardiff is the **Third Largest Port** for the quantity of Shipping cleared, and the **Premier Port** in the World for the Shipment of Coal.

Imports in 1888 at the Bute Docks	1,300,748 tons.
Exports in 1888 at the Bute Docks	7,968,054 "

The **Dock Charges** at the Bute Docks are much below the average of our great ports; and as vessels can always procure an outward cargo to nearly any Port in the World without changing docks, the advantages are obvious.

Cardiff is the **Natural Port** for Birmingham and the Midland District, and the Bute Docks Company are prepared to **receive, warehouse, issue warrants, and forward** any goods consigned to them for shipment or unshipment.

Cold Storage.—Good accommodation is provided for the storage of **Dead Meat, &c., &c.**

Note.—

The Bute Docks are the **only docks** situated in the **Town of Cardiff**.

Vessels using the Bute Docks thereby save their Owners and Captains **from loss of time** in making journeys between their **Vessels** and the **Consul's, Merchants' and Brokers' Offices, Banks, Custom House, Post Office, &c., &c., all of which offices are adjacent to the Bute Docks.**

The fullest information on all matters will be readily given on application to

THE BUTE DOCKS COMPANY, CARDIFF.



Swansea, you may depend upon it, is destined to become the Ocean Port of England."—Sir H. HUSSEY VIVIAN, Bart., M.P.

SWANSEA.

The affairs of the Port of Swansea are administered by a Public Trust, and the Rates are charged alike to all Persons in respect of the same description of Vessels and of Goods.

The Prince of Wales' Dock possesses one of the largest and deepest Locks in the Bristol Channel. The North and South Docks, though of older date, are supplied with the most modern Hydraulic Appliances. The Docks are surrounded by over twenty miles of Railway (the property of the Trustees), connecting them with the great Railway systems, viz., the Great Western, London and North-Western, and Midland, which enter Swansea by independent routes. The Quays, upwards of three miles in length, are furnished with 19 Hydraulic Coal Tips, and Hydraulic and other Cranes.

The Number of Vessels that entered and cleared in 1888 was 9,066, of 2,491,666 net reg. tons.

The total Trade of the Port in imports and exports in 1888 amounted to 2,607,358 tons, of the estimated value of £10,181,307. The Tonnage of Imports shows an increase of 45·19 per cent., and of Exports 85·74 per cent., whilst the Gross Revenue resulting from the foregoing discloses an increase of 70·83 per cent., compared with the corresponding figures for 1878.

These important increases are, to a very great extent, due to the excellent accommodation provided by the Prince of Wales' Deep Sea Docks, which were opened in 1882, and which are 40 miles nearer the open sea than Cardiff or Barry.

The quantity of Copper smelted in the Local Works in a year is about 21,000 tons, of the value of £1,631,250; Steel, 500,000 tons, of the value of £2,500,000. The Spelter, or Zinc, manufactured in Swansea forms 19·20th of the whole production of the Kingdom, of the total value of £500,000, one year's make of Tin and Terne Plates in the neighbourhood of Swansea is about six million boxes, valued at £4,000,000 sterling. The total shipment of Tin Plates at Swansea in 1878 was 211,225 boxes, weighing 12,425 tons, which had increased in 1888 to 3,370,803 boxes of 201,896 tons weight, of the value of £2,826,544. The manufacture of Chemicals, Patent Fuel, Welsh Woollen Goods, and Railway and Engineering Plant are also among the Staple trades of the Town and Port. There are over 140 Works of 36 varieties, employing upwards of 30,000 hands, within a radius of four miles from Swansea Harbour.

On the completion of the Rhondda and Swansea Bay Railway, Swansea will be the nearest Port to the celebrated Rhondda Valley. The boring of the Tunnel through the Mountain, the last link of this important line, has been effected, and during the coming summer the line will be open for traffic. Coal of the same quality as that known as "Cardiff Coal" will then be shipped under the most favourable conditions. In addition the line also passes through the Avan Valley, a virgin coal field, to which shippers are already directing their attention in view of the partial exhaustion of the older Rhondda Workings. This Valley lies between Swansea and the Rhondda district, and is therefore MANY MILES NEARER TO SWANSEA THAN TO CARDIFF OR BARRY.

The Mumbles Lighthouse Signal Station is connected with the Post Office system of Telegraphs. Vessels calling for orders can communicate with the owners without lowering a boat—good and sheltered anchorage being found and the Mumbles Head at any state of the tide free of charge. Registered Telegraph Address: "Swansea Bay Signal Station."

For information on any point connected with the Port and Harbour apply to

JOHN DIXON,

General Superintendent

Registered Address of Telegrams: "DIXON," SWANSEA.

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THE
"SHIPPING WORLD" YEAR BOOK:
A DESK MANUAL
IN
TRADE, COMMERCE, AND NAVIGATION.

EDITED BY
EVAN ROWLAND JONES,
[United States Consul.]

390.

"Infinite riches in a little room."

C. MARLOWE.

London:
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1890.

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SILVER MEDAL,

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RHC

PREFACE.

THIS is the fourth issue of the "*Shipping World Year Book*." Important additions and improvements upon former editions have been made; and the present volume contains, all in alphabetical order, THE TARIFFS OF ALL NATIONS, AND OF THE COLONIES; THE FIRST COMPLETE PORT AND HARBOUR DIRECTORY OF THE BRITISH ISLES ever published, and A DIRECTORY OF THE PRINCIPAL PORTS OF THE WORLD, giving Accommodation, Charges, Tides, Trades, Pilotage, Towage, and Officials; with all necessary information required by Masters, Engineers, and Merchants.

The book also contains, with other information:—Almanack, Admiralty Notes, Agreements, Astronomical Definitions, Balance Sheet of Commerce, a list of British Consuls and a Table of Consular Fees, Digest of Shipping Acts, Documents required for Clearing Ships, Engineering Notes, Information regarding the Examination of Masters and Engineers, Foreign Monies, Weights and Measures, Foreign Mails, Freights, Imports and Exports, Instruments of the Weather, Lighthouses, Load-Line Tables, Measurement of Ships, Merchant Shipping Act (Digest), Navies of Europe, Pilotage Laws, Public Debt of Foreign Countries, Powers of the Board of Trade, Postal Information, Rates of Freights, Removal of Wrecks, Sailing Rules, Shipping Terms (Commercial), Stamp Duties, the Suez Canal, Trade Statistics of the most recent dates, valuable scientific information, specially prepared tables, calculators and guides for men engaged in Commerce and Navigation.

The Pilotage and Towage rates are included in the Port Directory instead of under separate headings, thus enabling the reader to have at once before him all the information concerning each port.

We have again to make grateful acknowledgment to many of our subscribers, to the various port authorities of the United Kingdom and the Colonies, and throughout the world, and to Her Majesty's and the United States' Consuls abroad, for excellent and ungrudging service in correcting past errors, supplying new facts, and making the necessary alterations for this Edition of 1890.

THE EDITOR.

*Gresham Press Buildings,
Little Bridge Street, London.*



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The Shipping World Year Book
AND
Port Directory.

ALMANACK FOR 1890.

ARTICLES OF THE CALENDAR FOR THE YEAR 1890.

Golden Number	10	Dominical Letter... ..	F
Epact	9	Roman Indiction... ..	3
Solar Cycle	23	Julian Period	6603

ECLIPSES.

June 17th—Annular Eclipse of the Sun, visible as a partial Eclipse at Greenwich. 8.20 a.m.

Nov. 25th—Partial Eclipse of the Moon, invisible at Greenwich.
First contact, 1.28 p.m.

December 11th—Total Eclipse of the Sun, invisible at Greenwich.

The Year 5651 of the Jewish Era commences on Sept. 15, 1890.

Ramadán (Month of Abstinence observed by the Turks) commences on April 21, 1890.

The Year 1308 of the Mohammedan Era commences on August 17, 1890.

THE "SHIPPING WORLD" YEAR BOOK ALMANACK, 1890.

JANUARY.			FEBRUARY.			MARCH.		
High Water Lond. Bidge			High Water Lond. Bidge			High Water Lond. Bidge		
W 1	<i>Circumcision.</i>	mrn. aft.	S 1		mrn. aft.	S 1	<i>St. David.</i>	mrn. aft.
Th 2		10 10 43	S 2	<i>Septuagesima.</i>	11 41 12 13	S 2	<i>Apogee.</i>	9 31 10 17
F 3		11 15 11 46	M 3	<i>Apogee.</i>	12 0 0 42	M 3		11 1 11 39
S 4		12 0 0 13	Th 4		1 7 1 29	Th 4		12 0 0 53
S 5		12 39 1 4	W 5	○ Full Moon,	1 50 2 10	W 5	○ Full Moon,	12 45 1 9
M 6	<i>Epiphany. O</i>	1 25 1 45	Th 6	1.13 a.m.	2 27 2 43	Th 6	6.47 p.m.	1 30 1 49
Th 7	Full Moon,	2 6 2 23	S 7		3 1 3 16	S 7		2 8 2 24
W 8	5.36 a.m.	2 39 2 57	F 8		3 31 3 47	F 8		3 9 3 34
Th 9	Apogee.	3 14 3 32	S 9		4 3 4 20	S 9		3 40 3 54
W 10		3 48 4 5	M 10		4 36 4 53	M 10		3 40 3 54
S 11		4 22 4 39	Th 11		5 10 5 26	Th 11		4 11 4 27
S 12		4 56 5 13	W 12	○ Last Qr.,	5 44 6 2	W 12		4 44 5 0
M 13	<i>Hilary Bp.</i>	5 32 5 50	Th 13	6.51 p.m.	6 22 6 45	Th 13	○ Last Qr.,	5 18 5 35
W 14	○ Last Qr.,	6 11 6 32	F 14	<i>St. Valentine.</i>	7 8 7 36	F 14	4 a.m.	5 55 6 16
Th 15	6.32 a.m.	6 56 7 22	S 15		8 5 8 39	S 15		6 40 7 9
W 16		7 47 8 17	Th 16	<i>Quinquages.</i>	9 18 10 2	Th 16		7 39 8 10
Th 17		8 49 9 23	F 17		10 46 11 30	F 17	<i>St. Patrick.</i>	8 59 9 48
S 18		10 1 10 37	S 18	Perigee.	12 0 0 9	S 18		10 39 11 24
S 19		11 12 11 48	M 19	<i>Ash W'ed</i>	12 43 1 11	M 19	Perigee.	12 0 0 8
M 20	○ New Moon,	12 50 1 18	Th 20	New Moon,	1 39 2 52	Th 20	○ New Moon,	12 37 1 3
W 21	11.49 p.m.	1 46 2 12	F 21	10.27 a.m.	2 29 2 52	F 21	9.1 p.m.	1 28 1 52
Th 22	Perigee.	2 37 3 3	S 22		3 14 3 36	S 22		2 13 2 34
W 23		3 27 3 52	Th 23	1st S. in Lent.	3 57 4 18	Th 23		2 54 3 13
F 24		4 15 4 38	M 24		4 38 4 57	M 24		3 33 3 51
S 25	<i>Conversion of</i>	4 5 5 25	Th 25		5 16 5 35	Th 25	<i>Annunciation</i>	4 10 4 28
S 26	<i>St. Paul.</i>	5 46 6 7	W 26	○ First Qr.,	5 53 6 12	W 26	—Lady Day	4 45 5 1
M 27	○ First Qr.,	6 30 6 52	Th 27	2.6 p.m.	6 33 6 53	Th 27	9.32 a.m.	5 19 5 36
Th 28	8.16 p.m.	7 14 7 40	F 28		7 16 7 43	F 28	○ First Qr.,	5 55 6 17
W 29		8 7 8 35	S 29		8 12 8 47	S 29	Apogee.	6 38 7 1
Th 30	<i>King Charles</i>	9 9 9 47	M 30			M 30	<i>Palm Sunday.</i>	7 39 8 4
F 31	the Martyr,	10 25 11 5						8 47 9 29
								10 17 11 0
APRIL.			MAY.			JUNE.		
High Water Lond. Bidge			High Water Lond. Bidge			High Water Lond. Bidge		
W 1		mrn. aft.	Th 1		mrn. aft.	S 1	<i>Trinity Sun.</i>	mrn. aft.
Th 2		11 38 —	F 2		11 47 —	M 2		12 8 12 25
F 3		12 10 0 36	S 3		12 12 0 34	Th 3	○ Full Moon,	12 49 1 11
S 4	<i>Good Friday.</i>	1 34 1 51	Th 4	○ Full Moon,	12 59 1 11	W 4	6.34 a.m.	1 33 1 53
S 5	○ F.M., 9.24 a.m.	2 9 2 24	M 5	9.8 p.m.	1 29 1 47	W 4	Perigee, Corp.	2 25 2 37
M 6	<i>Easter Sunday</i>	2 38 2 54	Th 6		2 5 2 21	F 6	Christi.	3 0 3 22
M 7		3 9 3 26	W 7		2 39 2 59	S 7		3 46 4 20
Th 8		3 54 4 1	Th 8	Perigee.	3 18 3 38	S 7		4 36 5 0
W 9		4 19 4 38	F 9		3 59 4 19	M 9	○ Last Qr.,	5 27 5 55
Th 10		4 56 5 15	S 10		4 49 5 5	Th 10	9.49 p.m.	6 24 6 54
F 11	[to 53 p.m.]	5 37 6 1	Th 11	<i>Rog. Sun.</i>	5 29 5 55	W 11		7 26 7 58
S 12	○ Last Qr.,	6 28 6 57	M 12	Last Qr.,	6 25 6 50	Th 12		8 31 9 7
M 13	<i>Low Sunday.</i>	7 31 8 10	Th 13	4.21 p.m.	7 30 8 9	F 13		9 42 10 16
Th 14	Perigee.	8 56 9 46	W 14		8 52 9 35	S 14		10 46 11 17
W 15		10 32 11 12	Th 15	<i>Ascen. Day.</i>	10 14 10 49	S 14		11 46 —
Th 16		11 48 —	M 16		11 22 11 51	Th 16	Tot. Ec. of Sun.	12 12 0 36
W 17		12 18 0 43	Th 17		12 0 0 17	M 17	○ New Moon,	1 0 1 20
F 18		1 8 1 29	S 18	○ New Moon,	12 40 1 3	Th 17	9.57 a.m.	1 44 2 4
S 19	○ New Moon,	1 49 2 9	M 19	8.18 p.m.	1 24 1 45	W 18		2 23 2 43
M 20	8.5 a.m.	2 28 2 46	Th 20		2 4 2 22	Th 19		3 1 3 19
S 21		3 5 3 24	W 21		2 41 2 59	F 20	Ac. of Qn. Vic.	3 37 3 55
Th 22		3 41 3 59	Th 22		3 18 3 35	S 21	Apogee.	4 13 4 31
W 23	<i>St. George.</i>	4 17 4 34	F 23	[Birthday.	3 54 4 12	M 23		4 50 5 8
Th 24		4 52 5 9	S 24	Apogee. Qun.'s	4 30 4 47	W 24	<i>Midsmr. Day.</i>	5 27 5 47
F 25		5 27 5 47	Th 25	<i>Whit Sunday.</i>	5 45 6 8	Th 25	○ First Qr.,	6 37 6 50
S 26	Apogee.	6 8 6 32	W 26	○ First Qr.,	6 32 6 59	Th 26	1.53 p.m.	6 53 7 18
Th 27	○ First Qr.,	6 59 7 29	Th 27	10 33 p.m.	7 27 7 58	S 28		7 44 8 12
M 28	4.51 p.m.	8 5 8 45	W 28		8 32 9 10	Th 29		8 41 9 14
Th 29		9 29 10 10	F 29		9 47 10 19	S 29		9 48 10 18
W 30		10 47 11 19	F 30		10 50 11 18	M 30		10 47 11 17
			S 31		11 45 12 0			11 47 —

THE "SHIPPING WORLD" YEAR BOOK ALMANACK, 1890.

JULY.			AUGUST.			SEPTEMBER.					
		High Water Land. Bdge.			High Water Land. Bdge.			High Water Land. Bdge.			
Th	1	12 23 p.m.	12 14	0 40	F	1 47	2 13	M	1	3 11	3 33
W	2	Full Moon, Perigee.	1 51	1 31	S	2 38	3 4	W	2	3 54	4 16
Th	3		1 56	2 22	S	3 28	3 51	W	3	4 37	4 57
F	4		2 46	3 12	M	4 16	4 49	Th	4	5 15	5 36
S	5		3 37	4 3	Th	5 3	5 24	F	5	5 56	6 17
S	6		4 28	4 54	W	5 47	6 9	S	6	6 39	7 2
M	7		5 21	5 47	Th	6 33	6 55	Th	7	7 29	7 58
Th	8		6 13	6 38	F	7 20	7 43	W	8	8 35	9 18
W	9	Last Qr., 4.43 a.m.	7 5	7 33	S	8 12	8 43	Th	9	10 4	10 48
Th	10		8 0	8 29	S	9 20	9 59	Th	10	11 26	—
F	11		8 59	9 32	M	10 37	11 15	Th	11	12 2	0 31
S	12		10 5	10 39	Th	11 52	—	F	12	12 54	1 14
S	13		11 11	11 42	W	12 24	0 51	S	13	1 34	1 51
M	14		12 0	0 10	Th	1 13	1 35	Th	14	2 7	2 22
Th	15	St. Swithin, 12.49 a.m.	12 39	1 4	F	1 56	2 14	M	15	2 38	2 52
W	16	New Moon, Apogee.	1 28	1 49	S	2 30	2 47	Th	16	3 6	3 22
Th	17		2 9	2 28	S	3 3	3 18	Th	17	3 36	3 52
F	18		2 47	3 4	M	3 34	3 50	W	18	4 8	4 23
S	19		3 22	3 39	Th	4 6	4 22	F	19	4 40	4 55
S	20		3 55	4 13	W	4 37	4 53	S	20	5 12	5 20
M	21		4 31	4 47	Th	5 9	5 26	Th	21	5 50	6 13
Th	22	St. Mary Mag.	5 4	5 21	F	5 43	6 2	W	22	6 40	7 8
W	23		5 39	5 58	S	6 22	6 45	Th	23	7 42	8 24
Th	24	12.44 a.m.	6 17	6 18	S	7 9	7 37	W	24	9 12	10 2
F	25	First Qr., St. Anne.	7 1	7 24	M	8 7	8 44	Th	25	10 48	11 31
S	26		7 51	8 18	Th	9 27	10 12	F	26	12 0	0 6
S	27		8 50	9 26	W	10 55	11 36	S	27	12 33	0 59
M	28		10 2	10 37	Th	12 0	0 12	S	28	1 24	1 45
Th	29	Perigee. 9.24 p.m.	11 14	11 49	F	12 43	1 10	Th	29	2 6	2 28
W	30		12 0	12 22	S	1 37	2 1	Th	30	2 48	3 7
Th	31	Full Moon,	12 51	1 19	S	2 25	2 49				
OCTOBER.			NOVEMBER.			DECEMBER.					
		High Water Land. Bdge.			High Water Land. Bdge.			High Water Land. Bdge.			
W	1	12 25	0 45	Th	12 57	1 15	Th	1	12 55	1 15	
Th	2		1 37	1 52	W	1 31	1 48	F	2	1 38	1 58
F	3		2 35	2 51	S	2 6	2 22	S	3	2 18	2 39
S	4		3 19	3 39	Th	2 39	2 57	Th	4	3 1	3 24
S	5	Last Qr., 8.23 p.m.	4 3	4 23	W	3 16	3 35	M	5	3 46	4 10
M	6		5 19	5 39	Th	3 57	4 17	Th	6	4 34	4 59
Th	7		6 1	6 23	W	4 38	5 0	W	7	5 25	5 52
W	8	Apogee.	7 54	8 37	F	5 25	5 52	Th	8	6 21	6 50
Th	9		9 27	10 14	S	6 22	6 56	F	9	7 21	7 53
F	10	St. Denis.	10 54	11 29	Th	7 31	8 11	S	10	8 25	8 58
S	11		12 25	0 45	Th	8 52	9 35	Th	11	9 34	10 1
Th	12		1 37	1 52	W	10 14	10 48	W	12	10 41	11 13
M	13	New Moon, 11.5 p.m.	2 6	2 20	F	11 20	11 48	Th	13	12 44	—
Th	14		2 35	2 51	S	—	0 13	W	14	11 10	0 37
W	15		3 6	3 22	S	12 35	0 58	Th	15	1 0	1 25
Th	16	St. Etheldreda.	4 13	4 30	Th	1 21	1 49	F	16	1 48	2 8
F	17		4 49	5 9	W	2 1	2 21	S	17	2 28	2 48
S	18		5 32	5 56	Th	2 41	3 0	Th	18	3 5	3 27
M	19		6 24	6 56	F	3 18	3 38	W	19	3 45	4 3
Th	20	First Qr., 5.36 a.m.	7 33	8 19	S	3 58	4 16	Th	20	4 20	4 38
W	21		9 6	9 55	Th	—	—				
Th	22	Perigee.	10 39	11 10	W	12 35	0 58				
F	23	St. Crispin.	11 40	—	Th	1 21	1 49				
S	24		12 17	0 39	W	2 1	2 21				
M	25	Full Moon, 12.41 p.m.	1 2	1 24	Th	2 41	3 0				
Th	26	St. Simon and St. Jude.	1 44	2 3	F	3 18	3 38				
W	27		2 23	2 43	S	3 58	4 16				
Th	28		3 2	3 20	S	—	—				
F	29		3 39	3 58	Th	—	—				
S	30		—	—	W	—	—				
Th	31		—	—	Th	—	—				

LORD SALISBURY'S SECOND MINISTRY.

ENTERED OFFICE AUGUST 3, 1886.

Office.	Minister.	Age	Years in H. of C.	Years in Office.
Prime Minister & Foreign Secretary	Lord SALISBURY	59	17	12½
Lord Chancellor	Lord HALSBURY	64	10	8½
Lord President of the Council ..	Viscount CRANBROOK ..	75	24	12½
Lord Privy Seal	Earl CADOGAN	49	—	8
First Lord of the Treasury	Rt. Hon. W. H. SMITH ..	64	21	9½
Chancellor of the Exchequer	Mr. G. J. GOSCHEN	58	16	—
Home Secretary	Mr. H. MATTHEWS	63	9	3½
Colonial Secretary	Lord KNUTSFORD	—	—	—
Indian Secretary	Viscount CROSS	66	20	9½
War Secretary	Mr. E. STANHOPE	44	15	8½
First Lord of the Admiralty	Lord G. HAMILTON	44	21	9½
Chief Secretary for Ireland	Mr. A. J. BALFOUR	49	15	3½
Lord Chancellor of Ireland	Lord ASHBOURNE	51	23	6½
President of the Board of Trade ..	Sir M. H. BEACH	—	—	—
Chancellor of Duchy of Lancaster ..	Duke of RUTLAND	71	45	—
President Local Govt. Board	Rt. Hon. C. T. RITCHIE ..	51	15	3½
President Board of Agriculture ..	Rt. Hon. H. CHAPLIN ..	—	—	—

[The above form the Cabinet.]

Office.	Minister.	Age	Years in H. of C.	Years in Office.
Lord Lieutenant of Ireland	Earl of ZETLAND	—	—	—
Secretary for Scotland	Marquis of LOTHIAN ..	56	—	3½
First Commissioner of Works	Mr. R. D. PLUNKET, Q.C.	51	19	4½
Postmaster-General	Mr. H. CECIL RAIKES ..	51	21	10
Vice-President of Council	Sir W. HART-DYER	52	—	9
Civil Lord of the Admiralty	Mr. E. ASHMEAD-BART- LETT	41	9	3½
Political Secretary Bd. of Trade ..	Ld. BALFOUR of Burleigh ..	—	—	—
Under Secretary Colonies	Baron H. DE WORMS ..	49	9	3½
Under Secretary India	Sir J. E. GORST, Q.C. ..	54	16	3½
Attorney-General	Sir R. E. WEBSTER, Q.C. ..	46	4	3½

POSTAL INFORMATION.

INLAND POSTAGE RATES.—Letters to any part of the United Kingdom (the Channel Islands included), if not exceeding 1 oz., are charged 1d; exceeding 1 oz., but not exceeding 2 oz., 1½d; and ½d for every additional 2 oz. or fraction of 2 oz. An inland letter must not exceed 18 in. in length, 9 in. in width, and 6 in. in depth, except Parliamentary petitions and addresses to the Queen. A letter addressed to a provincial post office to be called for is kept a month; if addressed to a person on board a ship expected to arrive there it is kept two months. Unstamped or unpaid letters are charged double postage on delivery. The Registration Fee for Inland and Foreign letters is 2d.

BOOK OR NEWSPAPER POST.—Any book packet, open at both ends, may be sent to any part of the United Kingdom at a rate of—not exceeding 2 oz., ½d; 4 oz. 1d, 6 oz. 1½d, 8 oz. 2d, 16 oz. 4d, and ½d for every additional 2 oz. On a Newspaper and Supplement ½d; on a Postal Card ½d. No book packet may exceed 5 lbs. in weight, 18 in. in length, 9 in. in width, or 6 in. in depth, unless it be sent to or from a Government office. Newspapers going abroad must be posted within eight days of, and inclusive of day of publication, and must be prepaid.

INLAND PARCEL POST.—For an Inland Postal Parcel of a weight of—not exceeding 1 lb. 3d, 2 lb. 4½d, 3 lb. 6d, 4 lb. 7½d, 5 lb. 9d, 6 lb. 10½d, 7 lb. 1s, 8 lb. 1s 1½d, 9 lb. 1s 3d, 10 lb. 1s 4½d, 11 lb. 1s 6d, to be prepaid in ordinary postage stamps. The dimensions allowed are: Maximum length 3 ft. 6 in., maximum length and girth combined 6 ft.

TELEGRAPHIC AND CABLE RATES.—Throughout United Kingdom 6d for 22 words, including the address; ½d for every additional word. Cables to Austria 4½d per word, Belgium 2d, France 2d, Germany 2d, Holland 2d, Hungary 4½d, Italy 4½d, Norway 4d, Portugal 5½d, Russia in Europe 6½d, Spain 4½d, Sweden 5d, Switzerland 3½d, Turkey in Europe 7d. To the United States, 1s to 1s 6d per word. Australia, 9s 2d to 9s 9d; India, 4s; by Submarine Co. (via Turkey), 3s 8d per word.

MONEY AND POSTAL ORDERS FOR THE UNITED KINGDOM.—Sums not exceeding £10 can be remitted by Post Office Order as follows: Under 20s, 2d; 20s and under £2, 3d; £2 and not exceeding £4, 4d; £4 and not exceeding £7, 5d; above £7 and not exceeding £10, 6d. Such Orders must be presented for payment within 12 months. Postal Orders, payable within 3 months, are issued as follows: For 1s or 1s 6d, at ½d; 2s to 10s 6d, 1d; 15s and 20s, 1½d. They are payable not only at any place in the United Kingdom, but can be cashed at Malta, Gibraltar, and Constantinople. Foreign Postal Orders are procurable at moderate rates.

TELEGRAPH MONEY ORDERS (INLAND).—Money can be wired between London, Birmingham, Brighton, Bristol, Cardiff, Leeds, Liverpool, Manchester, Margate, Newcastle-on-Tyne, Portsmouth, Scarborough, Dundee, Edinburgh, Glasgow, Belfast, Cork, and Dublin—in sums not exceeding £10, on payment of cost of Telegram (minimum 9d), and the following commission:—For sums not exceeding £1, 4d; £2, 6d; £4, 8d; £7, 10; and £10, 1s.

STAMP DUTIES AND REGULATIONS.

INLAND BILLS OF EXCHANGE OR PROMISSORY NOTES.—For any sum not exceeding £5, 1d; £10, 2d; £25, 3d; £50, 6d; £75, 9d; £100, 1s; £200, 2s; and 1s for every £100 or fractional part of £100.

FOREIGN BILLS.—Foreign Bills, drawn in, but payable out of the United Kingdom. If drawn singly, or otherwise than in a set of three or more, the same duty as Inland Bills. If drawn in sets of three or more, for every Bill of each set, not exceeding £25, 1d duty; £50, 2d; £75, 3d; £100, 4d; £200, 8d; £300, 1s; £400, 1s 4d; £500, 1s 8d; £750, 2s 6d; £1,000, 3s 4d; £1,500, 5s; £2,000, 6s 8d; and for every £1,000 or fractional part of £1,000, 3s 4d. Receipt or Discharge for payment of £2 or upwards, 1d. Bills of Lading, 6d. Charter Party, 6d. Affidavit or Declaration, 2s 6d. Agreement, under hand only, of any matter of the value of £5 or upwards, 6d. Bonds to secure any sum, commence at 1s 3d not exceeding £50, and increase 1s 3d for every £50 and fractional part of £50 up to £300, then increase 2s 6d for every £100 and fractional part of £100 and upwards.

FOREIGN MAILS.

No Colonial or Foreign letter to exceed 2 feet in length, or 1 foot in width or depth.

PLACES.	Let- ters, 4 oz.	Spe- cial, 4 oz.	News- papers, 4 oz.	Printed Paper and Books, 2 oz.	Outward Mails from London.	Inward Mails at London.
Africa, West Coast	4d	1½d	1d	1d	Friday evening.	Every Monday.
Do. Native Possessions	6	...	1	2	Dates not fixed.	Uncertain.
Ascension	6	...	1	2	Monthly.	Monthly.
Austria-Hungary	2½	1	1d 2 oz.	1½	Twice daily.	Twice daily.
Belgium	2½	1	1d 2 oz.	1½	Three times daily.	Three times daily.
Argentine Republic, Brazil, Buenos Ayres, Chili, and Peru	4	1½	1	1	Weekly.	Weekly.
Canada, Vancouver, Nova Scotia	2½	1	1d 2 oz.	1½	Wed., Thur., and Sat.	Tuesday and Saturday.
Cape Colony, O. F. State, Natal	6	...	1	1d un. 1 oz. [and pat.]	Thursday.	Every Thursday.
China, Japan, Singapore	5	2	1½	1½	Friday.	Every Monday.
Denmark	2½	1	1d 2 oz.	1½	Twice daily.	Twice daily.
Egypt	2½	1	1	1½	Tues., Thur., and Fri.	Monday and Tuesday.
France	2½	1	1	1½	Morning and evening.	Three times daily.
Germany and Heligoland	2½	1	1	1½	Five times daily.	Five times daily.
Greece	2½	1	1	1½	Daily, except Saturday.	Mon., Wed., Thur., Fri.
India	5	2	1½	1½	Every Friday.	Every Monday.
Madaira	2½	1	1d 2 oz.	1½	Weekly.	Weekly.
Mauritius	4	1½	1	1	Monthly.	Monthly.
Mexico	4	1½	1	1	Nearly every day.	Nearly every day.
Newfoundland	4	1½	1	1	Every alternate Tuesday.	Twice a month.
New South Wales, New Zealand, South and West Australia, Tas- mania, and Victoria	6	...	1	1d un. 1 oz. [and pat.]	Every Friday.	Every Monday.
Norway and Sweden	2½	1	1d 2 oz.	1½	Morning and evening.	Daily.
Panama	4	1½	1	1	Every week.	Every week.
Queensland	6	...	1	2	Weekly.	Weekly.
Russia	2½	1	1d 2 oz.	1½	Morning and evening.	Daily.
Spain	2½	1	...	1½	Twice daily.	Daily.
United States	2½	1	1d 2 oz.	1½	Wednesday, Thursday, and Saturday.	Sun., Wed., Fri., Sat.
West India Islands	4	1½	1	1	Every alternate Thursday.	Every alternate Saturday.

COMPARISON OF BRITISH IMPERIAL WITH
METRICAL WEIGHTS AND MEASURES.

MEASURES OF LENGTH.

<i>English.</i>	<i>French.</i>
Inch = 2'539954 centims.	Millimètre = 0.03937 inch.
Foot = 3'049449 decims.	Centimètre = 0.393708 inch.
Yard = 0'91438348 mètre	Décimètre = 3'937079 inches
Fathom = 1'82876696 mètre	Mètre = { 39'37079 inches
Pole = 5'02911 mètres.	{ 3'2808992 feet
Furlong = 201'16437 mètres.	{ 1'093633 yard
Mile = 1609'3149 mètres.	Kilomètre = 1093'633 yards.
Nautical Mile = 1855'020.	Myriamètre = 6'2138 miles.
	Nœud = Eng. nautical mile.

SUPERFICIAL MEASURES.

Sq. in. = 0'000645137 sq. mètre.	Acre = 0'404671 hectare.
Sq. ft. = 0'0928968 sq. mètre.	Sq. mètre = 1'193623 sq. yard.
Sq. yd. = 0'836097 sq. mètre.	Are = 0'098845 rood.
Rod = 25'291939 sq. mètres.	Hectare = 2'471143 acres.
Rood = 10'116775 ares.	

WEIGHTS.

(Troy) Grain = 0'065 gramme.	Gramme = { 15'433 troy grs.
Pennyweight = 1'555 gramme.	{ 0'643 dwts.
Ounce = 31'102 grammes.	{ 15433'0 troy grns.
Pound (5760 grs.) = { 373'226 grammes.	Kilogram = { 2'679 troy
{ 373'226 grammes.	{ pounds.
{ 373'226 kilogramme	{ 2'205 avoir-
	{ dupois lbs.
(Avoirdps.) Dram = 1'77 grm.	Myriagramme } 22'0462125 lbs
Ounce = 28'35 grms.	or 10 kilos = }
Pound { 453'57 grms.	Quintal or } 220'462125 „
(7000 grs.) = { 45357 kilo	100 kilos = }
Hundredweight = 50'8 klgms.	Tonneau or } 0'9842059 of
Ton = 1016'0 klgms.	Millier = 1000 } a ton.
	kilos }

MEASURES OF CAPACITY.

Pint = 0'567932 litre.	Litre = { 1'760773 pint.
Quart = 1'135864 litre.	{ 0'220 gallon.
Gal. Imp. = 4'54345797 litres.	Décalitre = 2'20215 gallons.
Peck = 9'0869159 litres.	Hectolitre = 22'0215 gallons.
Bushel = 36'347664 litres.	Kilolitre = 220'215 gallons.
Sack = 1'09043 hectolitres.	Myrialitre = 2202'15 gallons.
Quarter = 2'907813 hectolitres.	
Chaldron = 13'08516 hectolitres.	

**FOREIGN MONETIES,
AND THEIR VALUES IN ENGLISH AND UNITED STATES
MONEY.**

Country.	Monetary Units.	Standard.	Value in English Money.	Value in U.S.
Argentine Republic	Peso fuerte	Gold	£ s. d.	\$ cts.
Austria	Florin	Silver	0 4 2	1 00'0
Belgium	Franc	Gold	0 2 11	41'3
Bolivia	Dollar	Silver	0 0 9½	19'30
Brazil	Milreis of 1,000 reis	Gold	0 3 1	83'6
British Possessions in North America	Dollar	Gold	0 2 3	54'5
Central America	Peso	Silver	0 4 0	1 00'00
Chili	Peso	Gold	0 3 1	83'6
China	Tael	Pure Silver	0 3 0	91'23
Cuba	Peso	Gold	0 6 8½	61'00
Denmark	Crown	Gold	0 3 10½	92'58
Ecuador	Peso	Gold	0 1 1	26'80
Egypt	Pound of 100 piasters	Silver	0 3 1	83'6
France	Franc	Gold and Silver	1 0 6	4 97'4
Great Britain	Pound Sterling	Gold	0 0 9½	19'30
Greece	Drachma	Gold	1 0 0	4 86'65
German Empire	Mark	Gold	0 0 9½	19'30
Haiti	Dollar	Silver	0 1 0	23'82
Jamaica	Pound Sterling	Gold	0 4 2	1 00'00
Japan	Yen	Gold and Silver	1 0 0	4 86'65
India	Rupee of 16 annas	Silver	0 4 2	99'70
Italy	Lira	Gold and Silver	0 2 0	39'7
Liberia	Dollar	Gold	0 0 9½	19'30
Mexico	Florin	Gold	0 4 0	1 00'00
Netherlands	Crown	Gold and Silver	0 3 7	90'9
Norway	Peso	Gold	0 1 8	40'20
Paraguay	Sol	Gold	0 1 1	26'80
Peru	Peso	Silver	0 4 2	1 00'00
Porto Rico	Peso	Gold	0 3 0	83'6
Portugal	Milreis of 1,000 reis	Gold	0 3 10	92'58
Russia	Rouble of 100 copecks	Silver	0 4 5	1 08'0
Sandwich Islands	Dollar	Gold	0 3 2	66'9
Spain	Peseta of 100 centimes	Gold and Silver	0 4 2	1 00'0
Sweden	Crown	Gold	0 0 9½	19'0
Switzerland	Franc	Gold	0 1 1	26'80
Tripoli	Mahbub of 20 piasters	Gold and Silver	0 1 1	26'80
Tunis	Piaster of 26 carombs	Silver	0 0 9½	19'30
Turkey	Piaster	Gold	0 3 1	74'8
United States of Columbia	Peso	Silver	0 0 6	12'50
Uruguay	Patacon	Gold	0 0 2½	04'0
Venezuela	Dollar	Gold and Silver	0 3 1	83'6

DISCOUNT PER CENT.

s. d.	is	in a £.	s. d.	is	in a £.	s. d.	is	in a £.
3½	0 6	"	12½	2 6	"	22½	4 6	"
5	1 0	"	15	3 0	"	25	5 0	"
7½	1 6	"	17½	3 6	"	30	6 0	"
10	2 0	"	20	4 0	"	35	7 0	"

CORN MEASURES OF DIFFERENT PORTS,

With their Appropriate Equivalent in English Quarters.

AUSTRIA.		MALTA.	
TRIESTE.—3½ Stojas = 1 Quarter.		101 Salma = 100 Quarters.	
BELGIUM.		*.* Some take 102 Salma = 100 Quarters.	
ANTWERP.—Grain Sold by weight—1,015		MOLDAVIA.	
Kilos = 2,240 Lbs.		GALATZ.—100 Kilos = 143 Quarters.	
DENMARK.		PORTUGAL.	
8 Scheffels = 1 Toende or Tun; 21 Tuns =		VIEIRA.—17 Alquieres = 1 Quarter.	
10 Quarters.		1 Moio = 3 Quarters.	
. Some calculate 208 Tuns = 100 Qrs. for		PRUSSIA.	
Wheat, and 210 Tuns = 100 Qrs. for Oats.		DANZIG—MEMEL—KÖNIGSBERG—PIL-	
EGYPT.		LAU.—56½ Scheffels = 1 Last; 1 Last =	
ALEXANDRIA.—100 Ardebs of Wheat, &c.		10½ Quarters.	
= 63 Qrs.; 100 Ardebs of Beans = 65 Qrs.		ANCLAM—BARTH—WOLGAST—STRAL-	
FRANCE.		SUND.—1 Last = 14 Quarters.	
112 Lbs. (Cwt.) = 50 8-10th Kilogrammes;		BERLIN AND STETTIN.—1 Last = 13	
100 Litres = 1 Hectolitre; 2 Hectolitres		2-12th Quarters.	
88 Litres = 1 Qr.; 36 Litres = 1 Bushel;		WISMAR.—1 Last = 13½, or sometimes 13	
1 English Ton = 105 Kilogrammes.		Quarters.	
GERMANY.		RUSSIA.	
BREMEN—HANOVER.—10 Scheffels = 1		PETERSBURG—ODESSA—RIGA.—2 Os-	
Whisp; 2 Whisps = 1 Last; 1 Last = 11½		min = 1 Chetwert; 100 Chetwerts = 72	
Quarters Wheat; 11 Quarters Barley.		Quarters.	
HAMBURG.—Last of Wheat, Pease,		SEA OF AZOF.—100 Chetwerts = 83 Qrs.	
Beans = 11½ Quarters; Barley = 10½		SICILY.	
Quarters; Oats = 10½ Quarters.		PALERMO.—4 Salma of 20 Tumlio, or 5	
ROSTOCK.—1 Last = 12½ Quarters.		Salma of 16 Tumlio = 5 Qrs. old measr.	
HOLLAND.		SMYRNA—(ASIA MINOR.)	
ROTTERDAM.—1 Last = 10½ Quarters		1 Kilo = 1 Imperial Bushel.	
Wheat and Rye; 10½ Quarters Barley;		SWEDEN.	
and 10½ Quarters Oats		2 Spann = 1 Tun or Barrel; 18 Tuns = 10	
GRONINGEN.—1 Last = 10 Quarters Oats.		Quarters.	
ITALY.		*.* Some take 176½ Barrels = 100 Qrs.	
ANCONA.—104½ Rubbeu = 100 Quarters.		SPAIN.	
GENOA.—2½ Mini = 1 Quarter.		3 Fanegas = 1 Quarter.	
. Some calculate 245 Minas, and some		TURKEY.	
248 Minas = 100 Quarters.		CONSTANTINOPLE.—816 Kilos = 100	
MILAN—VENICE.—3½ Staja = 1 Quarter.		Quarters.	
NAPLES.—5 2-5th Tomoli = 1 Quarter.		WALLACHIA.	
LEGHORN.—4 Sacchi = 1 Quarter.		IBRAIL.—100 Kilos = 220 Quarters.	
		. Some take 222½.	

TABLE SHOWING THE USANCE, OR USUAL TERM, AT WHICH
BILLS ARE DRAWN IN LONDON ON THE FOLLOWING
CITIES, AND THE DAYS OF GRACE ALLOWED.

London on	Usance.	Days of Grace.	London on	Usance.	Days of Grace.
Altona	1 month after date	6	Leghorn	3 months after date	..
Amsterdam	1 month after date	6	Leipsic	14 days after accept.	..
Antwerp	1 month after date	6	Lisbon	30 days after sight	6
Augsburg	15 days after sight	...	Madrid	2 months after sight	14
Barcelona	60 days after date	14	Malta	30 days after date	13
Berlin	14 days after sight	3	Milan	3 months after date	6
Bordeaux	30 days after date	10	Naples	3 months after date	3
Bremen	1 month after date	8	Oporto	30 days after sight	6
Cadiz	60 days after date	6	Palermo	3 months after date	...
Dantzic	14 days after accept.	10	Paris*	30 days after date	10
Dresden	14 days after sight	...	Rio Janeiro	30 days after date	6
Frankfurt	14 days after sight	4	Rotterdam	1 month after date	6
Geneva	30 days after date	5	Sydney	30 to 90 days af. sight	...
Genoa	3 months after date	30	Venice	3 months after date	6
Gibraltar	2 months after sight	14	Vienna	14 days after accept.	3
Hamburg	1 month after date	12			

* No days of grace are allowed on bills payable at sight.

Countries	Weight for Gold, Silver, &c.	Commercial Weight.	Cloth Measure.	Lineal Measure.	Land Measure.	Grain Measure.	Liquid Measure.
INDIA	Troy grains Tola 18 (Government) = 80 Tolas. Maund, Govern. 82.28 = 40 Seers.	Imper. lbs. Seer, Govern. 2.56 Guz, Bengal 27. Guz, Madras 36. Covrd, Madras 18.6	Imper. yards. Guz, Bombay 27. Covrd, Madras 36.	Imperial Mile Bengal, 1.13 mile	Imper. acres. Biggah, Bengal, 33 = 20 Cottahs. Cawney, Madras 1.38	Imper. bushels. Candy, Bombay 24.75 sold by weight, ex- cept at Calcutta, Madras, and Boma- bay, where the im- perial measures are used for wheat and Letro 19.13	Imper. gallons. Liquids generally sold by weight, ex- cept at Calcutta, Madras, and Boma- bay, where the im- perial measures are used for wheat and Letro 19.13
ITALY	Gramma.....	Chilogramma	Metro.....	Metro.....	Ara.....	Letro.....	Letro.....
JAPAN	Same as in the Metric System of France.	Same as in the Metric System of France.	Same as in the Metric System of France.	Same as in the Metric System of France.	Same as in the Metric System of France.	Same as in the Metric System of France.	Same as in the Metric System of France.
MALTA	Monne 58.24	Kin 1.33	Tonne saai 12.25	Keng 6 feet	Chd 2.30	Koln 5	Barile 6.35
MEXICO	Libbra 488	Pound 1.74	Canna 82.20	Foot 1.17 inch	Salma 4.44	Salma 7.93	Barile 6.35
NORWAY	Same as in Denmark	Same as in Denmark	Same as in Denmark	Same as in Denmark	Same as in Denmark	Same as in Denmark	Same as in Denmark
PERU	Miskal 47.7	Batman 13.4	Royal Guz 40	Parasang 4 miles	The same as in Arabia	Arabia 1.93	Arabia 1.93
POLAND	Same as in Russia	Same as in Russia	Same as in Russia	Same as in Russia	Same as in Russia	Same as in Russia	Same as in Russia
PORTUGAL	See Russia	See Russia	See Russia	See Russia	See Russia	See Russia	See Russia
PRUSSIA	Marc 3541	Pound 1.01	Vara 43.20	Foot 19.94 inch	Geira 1.43	Moyo = 15 Fanegas, 28.39	Almude 3.64
RUSSIA	The French See German Pound 6318	Metric System is the legal standard. Pound 90 Pood 36.00 = 40 lbs. Pecul = 100 Cattes, or 1600 Taels, 133.33	Arshine 28. Covrd 18. generally in the sale of European Goods, Metro 1.28	Foot 13.75 inch Verst .66 mile	The French See German Deciatina 2.70	Metric System is the legal standard. Empire Chetwerk 5.77	Vedro 2.70 Orhoft = 18 Vedros, 48.68 Gantang 1.04 [goods the sale of European Letro
SINGAPORE	Buncal 832	Pound 1.01	Covrd 18. generally in the sale of European Goods, Metro 1.28	Foot 13.75 inch Verst .66 mile	The French See German Deciatina 2.70	Moyo = 15 Fanegas, 28.39	Almude 3.64
SPAIN	British weights Grammo.....	Same as in the Metric System of France.	Same as in the Metric System of France.	Same as in the Metric System of France.	Same as in the Metric System of France.	Same as in the Metric System of France.	Same as in the Metric System of France.
SWEDEN	Marc 3552	Pound 94 Centner 112.51 = 93.7 lbs. Oke 2.83 to the French Metric System.	Ell 83.36 Long Pik 27.90	Foot 11.68 inch Mile 6.64 miles	Same as in France. Tunneland 1.28	Tunna, dry = 36 Kappar 4.03.	Kanna 7 [115.10 100 Almudes
SWITZ'LAND, TURKEY	Same as in Cheque 4957	Same as in Oke 2.83 to the French Metric System.	Long Pik 27.90	Foot 11.68 inch Mile 6.64 miles	Same as in France. Tunneland 1.28	Tunna, dry = 36 Kappar 4.03.	Kanna 7 [115.10 100 Almudes
U. STATES	Same as in Great Britain	Same as in Great Britain	Same as in Great Britain	Same as in Great Britain	Same as in Great Britain	Same as in Great Britain	Same as in Great Britain

The cwt. is frequently reckoned as 100 lbs. under the name of Quintal.

DEFINITION OF ASTRONOMICAL TERMS.

Aberration.—An apparent change of place in the fixed stars, which arises from the motion of the earth combined with the motion of light.

Altitudes.—The Altitude of an object is that portion of a vertical circle which is intercepted between the centre of the celestial object and the horizon.

Aphelion.—That point in the orbit of a planet in which it is at its greatest distance from the sun.

Apogee.—That point in the orbit of the moon or a planet in which it is at its greatest distance from the earth.

Azimuths.—The Azimuth of an object is its true bearing, east or west, of its nearest meridian. It is always equal to that portion of the horizon which is intercepted between the vertical circle passing through the centre of the object and the meridian of the place of observation.

Declination of a Celestial Object.—The Declination of any celestial object is its distance north or south from the equinoctial, and is measured by that portion of the celestial meridian which is intercepted between the centre of the object and the equinoctial.

Disk of the Sun or Moon.—The disk of the sun or moon is its round face, which, on account of the great distance of the object, appears flat as like a plane surface.

Diurnal.—Diurnal motions of the planets are the spaces they move through in a day.

Elongation.—The angular distance of a planet from the sun as it appears to us upon the earth.

Emersion.—The time when any planet which is eclipsed begins to recover its light again.

The Horizon.—The visible horizon is that which is seen with the eye is elevated above the surface; and the sensible is that which is seen when the eye is on a level with the water. The depression of the former below the latter is called the dip of the visible horizon.

Immersion.—The moment when an eclipse begins, or when a planet enters into a dark shadow.

Libration.—An apparent irregularity of the moon's motion makes her appear to librate about her axis in such a manner that parts of her eastern and western limbs become alternately visible and invisible.

Parallax.—Parallax is the difference between an altitude taken from the surface of the earth, and that taken at the centre of the earth. When the object is on the horizon, it is called the horizontal parallax; but in any other case it is called the parallax in altitude.

Penumbra.—A faint shadow which accompanies an eclipse, and occasions a partial obscurity of the body to that part of the sky to which it falls.

Perigee.—That point of the moon or a planet's orbit in which it is at its least distance from the earth.

Perihelion.—That point of a planet's orbit in which it is at its least distance from the sun.

Phases.—The several appearances of the moon are called phases, according as a greater or less part of their illuminated surface is presented to our sight.

Prime Vertical Circle.—The Prime Vertical Circle is a vertical circle which passes from the zenith due east or west, having the horizon intercepted between it and the meridian. The celestial objects on this circle are said to be on the prime vertical.

Polar Distance of any celestial object, is an arc of a meridian, contained between the centre of that object and the pole of the equinoctial; or, in other words, it is the distance of the object from the elevated pole.

Refraction.—Refraction is a quantity by which a body appears above its true place in the heavens.

Right Ascension.—The Right Ascension of a celestial body is that portion of the equinoctial which is intercepted by a celestial meridian passing through the centre of the body and the first point of the ecliptic. It is generally given in time.

Right Ascension of the Meridian.—The Right Ascension of the Meridian is that part of the equinoctial that comes to the Meridian with the object measured from the first point of Aries.

Terrestrial and Celestial Equators.—The Terrestrial Equator is a great circle (supposed to be described) around the earth, at an equal distance, or 90 degrees from the poles, dividing the globe into two equal parts; the part to the southward of the equator being called the southern hemisphere, and that to the northward the northern hemisphere.

The Celestial Equator, commonly called the Equinoctial, is an imaginary circle described in the heavens, corresponding to and coinciding with the terrestrial equator.

Time.—Time is measured by the apparent motion of a celestial body over the surface of the globe, and is called Solar, Lunar, or Sidereal, according to the body with which it is referred; a full revolution of either of these objects is called its apparent day, and begins when the object comes to the meridian; but for the convenience of civil and commercial business, that of the sun, called solar or civil time, is from midnight to midnight, the first twelve hours of which are marked A. M., signifying ante meridian, and the last twelve hours P. M., signifying post meridian. In this and the following mode of keeping time, the day is dated as soon as it commences.

Astronomical Day.—This day is also measured by the apparent motion of the sun, but for the convenience of astronomical computations, it is taken to begin at noon, that is, 12 hours after the beginning of the civil day, and end at noon of the following day. Astronomers generally reckon the hours of this day up to 24 hours, without any distinction of ante or post meridian, which they call astronomical time; hence the first 12 hours of which are the P. M. hours of the civil day on which it begins, and the last 12 hours of it are the A. M. hours of the day on which it ends.

The Nautical Day.—This day, as well as the civil and astronomical day, is measured by the apparent motion of the sun. It begins just with the astronomical day, but it is dated with the noon on which it ends; hence it is 24 hours in date later than the astronomical day, the first 12 hours of which are marked in the journal with P. M., and the last 12 hours with A. M., so that occurrences which happen on the afternoon of the civil day on which it begins, come in the journal under the date of the civil day in which it ends. The Log Book is generally kept in nautical or Sea Time, but it may be kept in Common or Civil Time.

Tropics.—The Tropics are two circles (supposed to be described) parallel to the equator, at the distance of about $23^{\circ} 28'$, equal to the highest declination. The northernmost is called the Tropic of Cancer, and the other the Tropic of Capricorn.

Twilight.—The Twilight is that duration of light which is apparent in the absence of the sun. It generally continues whilst he is traversing about 18 degrees below the horizon. It is caused by the column of atmosphere which surrounds the earth receiving the rays, or light, of the sun, and from which that light is transmitted to those parts of the surface of the globe opposite the sun at its rising and setting.

Vertical Circles.—Vertical Circles are circles (supposed to be described in the heavens) perpendicular to the horizon, and meeting at the Zenith. They are sometimes called circles of altitudes, circles of azimuths, and prime vertical circles.

Zenith and Nadir.—The Zenith is that point in the heavens which is directly over the observer's head; and the Nadir that which is opposite to it.

Zenith Distance.—The Zenith Distance of a celestial object is equal to that portion of the vertical circle which is intercepted between the centre of the object and the observer's zenith. It is always equal to the complement of the altitude to a quadrant, or 90 degrees.

EXPLANATION OF COMPASS TERMS.

Variation of the Compass is the angle between the True North and the Magnetic North. This difference or error arises from the Magnetic Poles not coinciding with the Terrestrial ones, and is due entirely to the influence of the earth on Magnetic Needles, which is the same at few parts of the world.

Deviation of the Compass is the angle included between the Magnetic North and the Compass North. This error is due to the disturbing influences of the iron of which the ship is built, as rudder-posts, masts, chains, funnel, &c.; her position when building, her cargo, or other causes *within* the ship.

Local Attraction is the error caused by some disturbing force *outside* the ship, and belonging entirely to the locality at which ship may be—as mooring posts or chains, dock cranes, another vessel alongside, volcanic or magnetic influences, &c.

Heeling Error is the effect produced on the Compass by heeling of an iron or composite ship, the angle increasing with amount of Heel.

Leeway is the angle between the ship's course by Compass the direction which she makes through the water, as shown by her wake.

Compass Course is the course steered by ship's Compass.

Magnetic Course is the Compass Course corrected for Deviation and Leeway.

The True Course of a Ship is the Compass Course corrected for Deviation, Leeway, and Variation.

EXPLANATION OF ASTRONOMICAL CHARACTERS.

☉ The Sun.	♁ Ceres.
☾ The Moon.	♃ Juno.
☿ Mercury.	♄ Jupiter.
♀ Venus.	♅ Saturn.
♁ The Earth.	♁ Uranus.
♂ Mars.	♆ Neptune.
♊ Ascending Node.	♋ Descending Node.

SIGNS OF THE ZODIAC, &c.

♈	Aries (the Ram), 0°
♉	Taurus (the Bull), 30°
♊	Gemini (the Twins), 60°
♋	Cancer (the Crab), 90°
♌	Leo (the Lion), 120°
♍	Virgo (the Virgin), 150°
♎	Libra (the Balance), 180°
♏	Scorpio (the Scorpion), 210°
♐	Sagittarius (the Archer), 240°
♑	Capricornus (the Goat), 270°
♒	Aquarius (the Waterbearer),
♓	Pisces (the Fishes), 330° [300°

- * Sextile, when two signs distant, or differing 60° in Longitude or Rt. Ascension.
 □ Quartile, when three signs distant, or differing 90° in Longitude or Rt. Ascension.
 ♌ Opposition, when six signs distant, or differing 180° in Longitude or Rt. Ascension.

♌ Conjunction, in the same degree or sign, or having the same Longitude or Rt. Asc.

N.	North.	'	Mins. of Arc.
S.	South.	"	Secs. of Arc.
E.	East.	h.	Hours.
W.	West.	m.	Mins. of Time
°	Degrees.	s.	Secs. of Time.

TERMS AND ABBREVIATIONS USED IN SHIPPING.

- A/c.—Account. E.E.—Errors excepted.
 E. & O.E.—Errors and omissions excepted.
 F.O.B.—Free on board. F.P.A.—Free of particular average.
 Inst.—Instant, present month. C/I/F.—Cost, Insurance & Freight.
 Prox.—Proximo, next month. Ult.—Ultimo, last month.
 D/D.—Days after Date. M/D.—Months after date.
 D/S.—Days after sight. %—Per cent.
 @—At, to. P—Per. B/L.—Bill of Lading.
 Ad valorem.—According to value.
 Adjustment.—The settlement of a loss incurred by the insured.
 Adventure.—Goods consigned to a party to be made the most of.
 Agio.—The Premium borne by a better sort of money above an inferior.
 Appraise.—To value goods imported.
 Assets.—A term for property and money in contradistinction to liabilities.
 Assurance.—See Insurance.
 Average.—A sacrifice made to prevent the total loss of a ship or cargo; an average of the loss insured for the benefit of all concerned, to be made good proportionately.
 Award.—The decision in arbitration.
 Banco.—A continental term for bank money at Hamburg and other places.
 Barratry.—A fraudulent act on the part of the master or crew of a vessel, against the interest of the owners. Insurances are effected against barratry.
 Bill of Health.—A certificate granted by Consuls and Customs Officers as to health of port.
 Bill of Lading.—A master's acknowledgment and undertaking as to receipt and delivery of goods or cargo.
 Bottomry.—Money borrowed on a ship's bottom or hull, to be repaid with interest if the ship return in safety, but if not to be lost or forfeited. Sometimes it is raised on the lading and master's personal security; see *Respondentia*.
 Brokerage.—The commission charged by merchants and brokers for securing and transacting business for ships.
 Charter Party.—A contract with the owner, agent, or master for the service of his vessel.
 Consul.—The commercial representative of one country residing officially in another.

- Credit, Letter of.*—A letter written by one party to another, requesting the party addressed to advance the bearer or person named a certain sum of money.
- Days of Grace.*—Days allowed by law or custom for payment of Bills of Exchange (except those payable at sight or on demand) after specified day of payment; thus, when three days are allowed, as usual in England, a bill due on the 5th of the month is payable on the 8th.
- Dead Freight.*—The damage payable by one who engages to load a ship fully, and fails so to do.
- Debenture.*—An instrument of the nature of a bill or bond, by which a debt is claimable. May bear interest or confer some peculiar advantage. It is given at the Custom House to claim a drawback.
- Derelict.*—Goods cast away or relinquished by wreck or otherwise. Reductions in duty are also made proportionate to the damage on them.
- Deviation* is a divergence from the voyage insured which may release the underwriter from his risk.
- Drawback.*—An allowance granted by Government to encourage exportation of an article, or a return of duties paid upon certain articles on exportation.
- Discount.*—An allowance made for money paid before it is due. To discount a Bill is to buy from the holder the right to receive the money upon it when due.
- Dunnage.*—Articles used in stowing a cargo or trimming a ship.
- Embargo.*—An order issued by Government to prevent vessels sailing.
- Flotsam.*—Goods floating after a wreck. *Jetsam* are those sunk. *Lagan* are those sunk but secured by a buoy.
- Groundage.*—Money paid in some parts for permission to anchor.
- Insurance.*—A contract whereby, for a stipulated consideration called a premium, one party undertakes to indemnify the other against certain risks.
- Invoice.*—A document enumerating goods sold from A to B. Where the goods are exported by A to be sold on his own account, the document is a specification, and, strictly speaking, an invoice.
- Lay Days.*—Days allowed by charter for loading or unloading.
- Lighterage.*—The expense of a lighter or barge.
- Manifest.*—The specification of a cargo made out and signed by the master of a ship.
- Policy.*—A document containing the contract of insurance. *Policy* is when the interest insured is valued. *Policy* is one in which the amount is left for security of proof. In an open policy, where the value shipped is not equal the value insured, the difference is termed *insurance*; and the proportionate amount of profit turnable to the insurer is called a *return for share*.
- Frimage.*—A small allowance for the shipmaster's care now generally included in the freight.
- Pro ratâ.*—Payment in proportion to the interests concerned.
- Quid pro quâ.*—Giving one thing for another.
- Respondentia.*—A contract of loan by which goods are hypothecated to the lender, as in bottomry.
- Super Cargo.*—A person sent with a vessel to dispose of the cargo to the best advantage.

EDUCATIONAL STANDARD REQUIRED BY VARIOUS MARITIME POWERS FOR MASTERS AND MATES.

France.	Holland.	Belgium.	Germany.	England.
Algebra	Yes.	Yes.	Yes.	No.
Geometry	"	"	"	"
Trigonometry	"	"	"	"
Mechanics	No.	"	"	"
Physics	Yes.	"	"	"
Steam Engine	"	"	"	"
Languages	"	"	"	"
Winds and Currents	"	"	"	Yes.
Navigation	"	"	"	"
Nautical Astronomy	"	"	"	"
" Survey	"	"	"	No.
Instruments	"	"	"	Yes.
Observations	"	"	"	"

AIR.

In its pure state air is composed as follows :—

Nitrogen	77 per cent.
Oxygen	21 do.
Other components	2 do.
	100

The percentage of oxygen varies as follows :—

Sea-shore	21 per cent.
Mines	20.50 do.
Confined Houses	20.75 do.

Air travels in England in healthy years at the rate of about $4\frac{1}{2}$ miles per hour, and in unhealthy years about $3\frac{1}{2}$ miles per hour. Each adult inhales a gallon of air per minute, and consumes daily 30 oz. of oxygen. For the conversion of this oxygen a certain amount of food is required—say 13 oz. of carbon for a male and 11 oz. for a female—equivalent to 3lb. and $2\frac{1}{2}$ lb. of bread respectively.

THE POWER OF THE WIND.

Figures to denote the Force of the Wind.	Description of Wind.	POWER OF THE WIND as regards a well-conditioned Man-of-War or First-class Clipper Ship.	Rate of the Wind per Hour in Miles.
0	Calm		0 to 2
1	Light Air	Just sufficient to give steerage way	3 — 10
2	Light Breeze ..	With which the above Ship with all sail set and clean full would go in smooth water	1 to 2 knots. 11 — 15
3	Gentle Breeze ..		3 to 4 " 16 — 20
4	Moderate Breeze ..		5 to 6 " 21 — 25
5	Fresh Breeze ..	Royals, &c.	26 — 30
6	Strong Breeze ..	Single Reefs and T.G. Sails	31 — 36
7	Moderate Gale ..	Double Reefs and Jib, &c.	37 — 44
8	Fresh Gale	Triple Reefs, &c.	45 — 52
9	Strong Gale	Close Reefs & Courses	53 — 60
10	Whole Gale	In which she could just bear close-reefed Main Topsail and reefed Foresail	61 — 69
11	Storm	Under Storm Staysail	70 — 80
12	Hurricane	Bare Poles	above 80

FORMULA FOR RECORDING STATE OF THE WEATHER.

B	denotes Blue Sky, <i>i.e.</i> clear or hazy atmosphere.	u	denotes Ugly, with a heavy appearance of the weather.
C	Cloudy — detached opening clouds.	v	Visibility of distant objects.
D	Drizzling Rain.	w	Wet dew.
F	Fog—FF Thick Fog.	.	Dot under any letter, an extraordinary degree.
G	Gloomy—dk. weather		By the combination of these letters all the ordinary phenomena of the weather may be recorded with certainty and brevity.
H	Hail.	BCM	Blue sky, with detached opening clouds, but hazy round the horizon.
L	Lightning.	GV	Gloomy dark weather, but distant objects <i>remarkably</i> visible.
M	Misty or Hazy—so as to interrupt the view		
O	Overcast— <i>i.e.</i> , whole sky covered with an impervious cloud.		
P	Passing Showers.		
Q	Squally.		
R	Rain—continuous rain		
S	Snow.		
T	Thunder.		

USE OF INSTRUMENTS IN FORETELLING WEATHER.

On Barometer Scales the following contractions may be useful in North Latitude:—

RISE FOR N. Ely.	FALL FOR S. Wly.
N. W.—N.—E.	S. E.—S.—W.
Dry or Less Wind.	Wet or More Wind.
Except Wet from N. Eward.	Except Wet from N. Eward.

And the following summary may be useful *generally*:—

RISE FOR Cold, Dry, or Less Wind.	FALL FOR Warm, Wet or More Wind.
Except Wet from Cold Side.	Except W from Cold Si

In other Latitudes substitute South or Southward for North

Much inequality of atmospheric pressure or temperature depression or elevation of the barometer, sudden or rapid nations, great falls of rain or snow—indicate more or less c more or less wind, with its usual accompaniments, either in places only, or throughout an extensive area of hundreds of if not thousands.

Speaking *generally*, there is far less occasion to give warn southerly storms by signal than of northerly, because those fi southward are preceded by notable signs in the atmosphe falling barometer, and by a temperature higher than usual season; whereas, on the contrary, dangerous storms from quarter (N. W. to N. E.) are sometimes sudden, and usu preceded by a *rising* barometer, which is often misleading, et when accompanied by a temporary lull, of perhaps a day with an appearance of fine weather.

THERMOMETER.

19

THERMOMETER.

Fahrenheit, Réaumur, and the Centigrade Scales

CNT.	FAHR.	RMR.	CNT.	FAHR.	RMR.	CNT.	FAHR.	RMR.	CNT.	FAHR.	RMR.
100	212	80	60	140	48	20	68	16	20	4	16
99	210.2	79.2	59	138.2	47.2	19	66.2	15.2	21	5.8	16.8
98	208.4	78.4	58	136.4	46.4	18	64.4	14.4	22	7.6	17.6
97	206.6	77.6	57	134.6	45.6	17	62.6	13.6	23	9.4	18.4
96	204.8	76.8	56	132.8	44.8	16	60.8	12.8	24	11.2	19.2
95	203	76	55	131	44	15	59	12	25	13	20
94	201.2	75.2	54	129.2	43.2	14	57.2	11.2	26	14.8	20.8
93	199.4	74.4	53	127.4	42.4	13	55.4	10.4	27	16.6	21.6
92	197.6	73.6	52	125.6	41.6	12	53.6	9.6	28	18.4	22.4
91	195.8	72.8	51	123.8	40.8	11	51.8	8.8	29	20.2	23.2
90	194	72	50	122	40	10	50	8	30	22	24
89	192.2	71.2	49	120.2	39.2	9	48.2	7.2	31	23.8	24.8
88	190.4	70.4	48	118.4	38.4	8	46.4	6.4	32	25.6	25.6
87	188.6	69.6	47	116.6	37.6	7	44.6	5.6	33	27.4	26.4
86	186.8	68.8	46	114.8	36.8	6	42.8	4.8	34	29.2	27.2
85	185	68	45	113	36	5	41	4	35	31	28
84	183.2	67.2	44	111.2	35.2	4	39.2	3.2	36	32.8	28.8
83	181.4	66.4	43	109.4	34.4	3	37.4	2.4	37	34.6	29.6
82	179.6	65.6	42	107.6	33.6	2	35.6	1.6	38	36.4	30.4
81	177.8	64.8	41	105.8	32.8	1	33.8	0.8	39	38.2	31.2
80	176	64	40	104	32	Zero	32	Zero	40	40	32
79	174.2	63.2	39	102.2	31.2	1	30.2	0.8	41	41.8	32.8
78	172.4	62.4	38	100.4	30.4	2	28.4	1.6	42	43.6	33.6
77	170.6	61.6	37	98.6	29.6	3	26.6	2.4	43	45.4	34.4
76	168.8	60.8	36	96.8	28.8	4	24.8	3.2	44	47.2	35.2
75	167	60	35	95	28	5	23	4	45	49	36
74	165.2	59.2	34	93.2	27.2	6	21.2	4.8	46	50.8	36.8
73	163.4	58.4	33	91.4	26.4	7	19.4	5.6	47	52.6	37.6
72	161.6	57.6	32	89.6	25.6	8	17.6	6.4	48	54.4	38.4
71	159.8	56.8	31	87.8	24.8	9	15.8	7.2	49	56.2	39.2
70	158	56	30	86	24	10	14	8			
69	156.2	55.2	29	84.2	23.2	11	12.2	8.8			
68	154.4	54.4	28	82.4	22.4	12	10.4	9.6			
67	152.6	53.6	27	80.6	21.6	13	8.6	10.4			
66	150.8	52.8	26	78.8	20.8	14	6.8	11.2			
65	149	52	25	77	20	15	5	12			
64	147.2	51.2	24	75.2	19.2	16	3.2	12.8			
63	145.4	50.4	23	73.4	18.4	17	1.4	13.6			
62	143.6	49.6	22	71.6	17.6	18	—	14.4			
61	141.8	48.8	21	69.8	16.8	19	2.2	15.2			

Zero Fahrenheit corresponds with *minus* 17.78 Centigrade, and *minus* 14.22 Réaumur.

WATER.

1 cubic ft. of water = 62½ lb. = 6¼ gallons.
 1 cubic ft. of sea water = 64 lb. = 6½ gallons.
 1 imperial gallon = 10 lb. = 277 cubic inches.
 224 gallons = 20 cwt. = 36 cubic feet.
 A column of water 12 inches high, 1 in. square = 434 lb.
 A similar column, 1 in. diameter = 341 lb.
 1 cylindrical foot = 4'9 gallons = 49 lb.
 An inch rainfall = 14½ million gallons per square mile.
 Current requires minimum fall 1-10th inch per inch.

IMMERSION IN SALT AND FRESH WATER.

To find the difference of immersion or draught in salt and fresh water. If from salt to fresh, multiply the draught of salt water by 36, and divide the product by 35. If from fresh to salt, multiply the draught of fresh water by 35 and divide the product by 36.

Example :—Required the draught of a vessel in fresh water when drawing 20 ft in salt water : $20\text{ ft} \times 36 = 720 \div 35\text{ ft.} = 20\frac{5}{7}\text{ in.}$

Table of draughts worked out by the above formula :—

Fresh to Salt.		Salt to Fresh.	
Water Mark in Fresh.	Would Draw in Salt.	Water Mark in Salt.	Would Draw in Fresh.
ft.	ft. in.	ft.	ft. in.
24	23 4	24	24 8½
22	21 4½	22	22 7½
20	19 5½	20	20 6½
18	17 6	18	18 6½
16	15 6½	16	16 5½
14	13 7½	14	14 4½
12	11 8	12	12 4½
10	9 8½	10	10 3½
8	7 9½	8	8 2½
6	5 10	6	6 2

DEPTH OF THE SEA.

Yards depth.		Y ₂ Aver
Average.	Max.	
Atlantic	4,026	7,750
Pacific	4,252	9,310
Indian	3,658	6,040
Arctic	1,690	5,300
Antarctic	3,000	3,950
Mediterranean	1,476	2,860
Irish		
English Channel....		
German		
Levant		
Adriatic		
Baltic		

The Southern Ocean below Cape Horn reaches a depth of 5,500
 Cape of Good Hope, 5,700 yards. The average depth of the Ba
 1,200 yards.

BEAUFORT NOTATION, FORMULA, AS
INDICATING THE DISTURBANCE OF T

0 Calm.	5 Rather R
1 Very Smooth.	6 Rough.
2 Smooth.	7 High.
3 Slight.	8 Very Hi
4 Moderate.	9 Trem

**TIME, AT FULL AND CHANGE,
WHEN THE FOLLOWING LIGHTSHIPS SWING FROM FLOOD
TO EBB.**

NAME OF LIGHTSHIP.	LAT.		LON.		TIME	OBSERVATIONS.	
	°	'	°	'	h. m.		
Bahama Bank	54	20	0	N	4 12	0 W 11 45	2nd high water.
Calshot	50	48	40	N	1 16	45 W 10 25	1st high water.
						12 0	2nd high water.
Cardigan Bay	52	24	30	N	5 0	30 W 10 30	"
Carnarvon Bay	53	5	40	N	4 44	30 W 10 30	"
Cockle	52	41	20	N	1 46	20 E 10 20	"
Corton	52	31	30	N	1 49	30 E 10 45	[then N.N.E. at 8
Dudgeon	53	15	0	N	0 56	0 E 7 0	Turns Eastward at 7,
East Goodwin	51	13	0	N	1 36	25 E 9 10	Uncertain.
English & Welsh Ground.	51	26	30	N	2 58	0 W 6 56	2nd high water.
Gallop	51	45	0	N	1 55	50 E 12 0	
Gull	51	16	0	N	1 28	25 E 9 13	
Hasbro'	52	58	0	N	1 36	0 E 10 30	
Helwick	51	31	0	N	4 24	0 W 6 0	2nd high water.
Inner Dowsing	53	19	20	N	0 34	20 E 7 0	Turns Eastward at 7, N.E.
							at 9, N.N.W. at 12.
Kentish Knock	51	30	30	N	1 41	0 E 11 20	Slack lasts about 20 min.
Leman and Ower	53	8	30	N	2 0	20 E 11 0	
Lynn Well	53	1	25	N	0 25	10 E 6 20	
Morecombe Bay	53	54	0	N	3 31	0 W 10 30	2nd high water.
Nab	50	42	15	N	0 59	25 W 12 0	About.
Newarp	52	45	0	N	1 53	0 E 10 30	[out from Sheerness.
Nore	51	29	0	N	0 48	0 E 12 30	The last 2 hours ebb, sets
North Goodwin	51	10	30	N	1 35	20 E 10 13	Uncertain.
Outer Dowsing	52	28	15	N	1 2	40 E 8 0	Turns Eastward at 8,
Owers	50	38	35	N	0 41	0 W 10 35	About. [then N. at 9.
Royal Sovereign	50	42	40	N	0 26	50 E 10 45	Swings about 15 mins. be-
Seven Stones	50	3	50	N	6 4	30 W 5 0	2nd high water. [fore N.W
Shambles	50	30	50	N	2 20	0 W 10 20	"
Shipwash	52	1	30	N	1 23	0 E 11 10	Slack lasts about 40 mins.
South Sand Head	51	9	12	N	1 28	10 E 9 0	Uncertain.
Spurn	53	34	0	N	0 13	0 E 6 20	
Snak	51	50	40	N	1 30	30 E 11 40	Slack lasts about 40 mins.
Tongue	51	29	0	N	1 19	20 E 12 15	
Varne	50	56	10	N	1 16	50 E 8 20	Uncertain.

**SPECIFIC GRAVITY OF DIFFERENT SUBSTANCES,
COMPARED WITH WATER.**

LIQUIDS, &c.		TIMBER.		METALS.	
Water	100	Cork	24	Zinc	719
Sea Water	103	Poplar	38	Cast-iron	721
Alcohol	84	Fir	55	Tin	729
Olive Oil	92	Cedar	61	Bar Iron	779
Turpentine	99	Pear	66	Steel	783
Petroleum	87	Walnut	67	Copper	869
Wine	100	Cherry	72	Brass	840
Cider	102	Maple	75	Silver	1,051
Beer	102	Apple	79	Lead	1,135
Porter	104	Ash	84	Mercury	1,357
Gravel or Sand, abt.	265	Beech	85	Gold	1,926
Granite	272	Mahogany	106	Platina	1,930
		Oak	117		
		Ebony	133		

A gallon of wine or water weighs 10lb.

SPHEROIDAL TABLES,

SHOWING THE LENGTH OF EACH DEGREE OF LATITUDE IN STATUTE MILES,
AND OF LONGITUDE IN MINUTES OF LATITUDE OR NAUTICAL MILES
UNDER EACH PARALLEL OF LATITUDE.

LATITUDE.							
Length of one Degree in Statute Miles.							
Lat.		Lat.		Lat.		Lat.	
0°	68'704	23°	68'810	46°	69'067	69°	69'318
1°	68'704	24°	68'810	47°	69'079	70°	69'326
2°	68'704	25°	68'828	48°	69'092	71°	69'333
3°	68'706	26°	68'838	49°	69'104	72°	69'341
4°	68'707	27°	68'848	50°	69'116	73°	69'348
5°	68'709	28°	68'858	51°	69'128	74°	69'355
6°	68'711	29°	68'868	52°	69'140	75°	69'361
7°	68'714	30°	68'879	53°	69'152	76°	69'367
8°	68'717	31°	68'889	54°	69'164	77°	69'373
9°	68'717	32°	68'900	55°	69'176	78°	69'378
10°	68'725	33°	68'912	56°	69'187	79°	69'383
11°	68'729	34°	68'923	57°	69'198	80°	69'387
12°	68'734	35°	68'934	58°	69'210	81°	69'391
13°	68'739	36°	68'946	59°	69'221	82°	69'395
14°	68'745	37°	68'953	60°	69'231	83°	69'398
15°	68'751	38°	68'970	61°	69'242	84°	69'401
16°	68'757	39°	68'982	62°	69'252	85°	69'403
17°	68'764	40°	68'994	63°	69'263	86°	69'405
18°	68'771	41°	69'006	64°	69'272	87°	69'407
19°	68'778	42°	69'018	65°	69'282	88°	69'408
20°	68'786	43°	69'030	66°	69'291	89°	69'409
21°	68'794	44°	69'042	67°	69'300	90°	69'409
22°	68'801	45°	69'055	68°	69'309		

LONGITUDE.

Length of one Degree in Nautical Miles.							
Lat.		Lat.		Lat.		Lat.	
0°	60'410	23°	55'550	46°	41'817	69°	21'521
1°	60'400	24°	55'125	47°	41'050	70°	20'538
2°	60'373	25°	54'684	48°	40'270	71°	19'548
3°	60'326	26°	54'225	49°	39'479	72°	18'553
4°	60'261	27°	53'751	50°	38'676	73°	17'553
5°	60'177	28°	53'259	51°	37'861	74°	16'547
6°	60'074	29°	52'751	52°	37'035	75°	15'536
7°	59'954	30°	52'228	53°	36'198	76°	14'521
8°	59'814	31°	51'688	54°	35'350	77°	13'502
9°	59'656	32°	51'133	55°	34'492	78°	12'478
10°	59'480	33°	50'562	56°	33'623	79°	11'451
11°	59'285	34°	49'976	57°	32'745	80°	10'421
12°	59'072	35°	49'375	58°	31'856	81°	9'388
13°	58'841	36°	48'758	59°	30'958	82°	8'352
14°	58'592	37°	48'127	60°	30'051	83°	7'313
15°	58'325	38°	47'481	61°	29'135	84°	6'272
16°	58'040	39°	46'821	62°	28'211	85°	5'230
17°	57'737	40°	46'146	63°	27'278	86°	4'186
18°	57'416	41°	45'459	64°	26'337	87°	3'140
19°	57'077	42°	44'757	65°	25'388	88°	2'094
20°	56'722	43°	44'042	66°	24'432	89°	1'047
21°	56'348	44°	43'313	67°	23'468	90°	0'0
22°	55'958	45°	42'571	68°	22'498		

LIGHTHOUSES.

To find the height at which a Light should be put above the sea level to show a given number of miles :—

Multiply the number of miles by itself, and by 4, and divide the product by 7. Thus, a lamp required to show ten miles— $10 \times 10 = 100 \times 4 = 400$

7) —

55½ feet.

Should be 55½ feet high above the sea level.

THE VICTUALLING OF SHIPS.

(THOMAS GRAY, ESQ., C.B.)

1. Scurvy has been on the increase in British ships since 1873.
2. Lime-juice, of *itself*, will not prevent scurvy, and too much reliance is placed on it, to the neglect of varied food scales.
3. Lime-juice, in connection with fresh or preserved meat and vegetables, may prevent scurvy.
4. The dietary scale of ships should therefore include a fair proportion of fresh and "preserved" meats, as distinguished from "salted" meats.
5. More fresh vegetables should be carried, notably raw potatoes. No satisfactory reason is given why fresh potatoes cannot be carried on board British ships. The allegation that they will not keep good on board ship is clearly disproved by the fact that they do keep on board United States ships, and will keep for a fair time anywhere else.
6. It is not at present desirable to insert a statutory scale of diet in the articles of agreements with crews serving on long voyages; though it may possibly be necessary hereafter, unless the shipowners themselves move in the matter.

LIST OF PORTS AND PLACES WHERE SHIPS
ARE SWUNG.

Names of Firms at each Port who arrange for Adjustment of Ships' Compasses for Deviation.

ABERDEEN.	Berry & Mackay, Marischall-st., Aberdeen.	In Bay.
BARROW.	F. A. Palmen, The Observatory, Barrow.	In Dock or in Chan
BELFAST.	F. M. Moore, 102, High-street, Belfast. S. D. Neill, Donegal-place, ,,	Spencer Basin or
BRISTOL.	W. Langford & Son, 53, Broad Quay, Bristol. C. W. Price, ,, ,, ,,	In Dock or in
CARDIFF.	T. L. Ainsley, James-street, Docks, Cardiff. B. Biggs, 64, Bute-street, ,, ,, H. J. Thatcher, 107, Bute-st., ,, ,, W. Weichert, Vienna Chambers, Bute-st. ,, T. J. Williams, 2, Bute-place, Docks, ,,	In any Dock permission ter, or in E
COWES.	P. Atkey & Son, 29, High-st., West Cowes.	In Solent if at private to Harbo
DUBLIN AND OTHER IR. PORTS.	J. Eshelby, 5, Eden Quay, Dublin. F. M. Moore, 23, ,, ,,	Pond, and
GT. YARM'TH.	Mayston & Son, South Quay, Gt. Yarmouth. Day & Hawkins, Broad Quay, ,,	In Road
GRIMSBY.	C. H. Bogen, Hamilton-st., New Clee, G. Grimsby J. F. Lundy, Fish Dock-rd., Grimsby Docks. O. T. Olsen, ,, ,,	At Sea

HARTLE- POOLS.	G. Berry & Son, 63, Church-st., W. Hartlepool A. Harris, 3, Church-street, " Emerson, 5, George-street, "	In Dock available or at sea.
HUMBER DISTRICT.	B. Cooke & Son, 44, Saville-street, Hull. Castle & Pagan, Commercial-road, " Newton Brothers, Princes Dock, " W. T. Parrott, Albert Dock, "	In River, White Boote Rds., Grimsby Rds., or at sea. Weather or ship's draught renders tug necessary.
LIVERPOOL.	T. Bassnett & Co., 10, Bath-street, Liverpool. J. Bruce & Son, 26, Wapping, " Chadburn & Son, Waterloo road, " Frodsham & Keen, St. George's-crescent " Graham & Parkes, 43, Canning-place " W. Gerrard, 25, South Castle-street, " D. M'Gregor & Co., 72, " " Sewill, " "	In River or any Dock avail- able. The outer walls of the Docks were marked about 1868 with the de- grees for vessels adjusting in the River Allowance now to be made for the difference in variation.
LONDON (THAMES DISTRICT).	Bryer & Son, 104, Minories, London. T. Hemsley & Son, King-st., Tower-hill, " Henry Hughes & Son, 59, Fenchurch-st., " J. Imray & Son, 89, Minories, " Lilley & Son, London-street, " D. M'Gregor & Co., 57, Fenchurch-st., " Norie & Wilson, 156, Minories, " J. D. Potter, King-street, Tower-hill, " James Pyott, 74, W. India Dock-road, " Reynolds & Son, 32, Crutched Friars, " W. H. Rosser, 14, America-square, " F. Wiggins & Sons, 10, King-st., Tower-hill "	At Greenhithe. Three sets of Buoys placed by the Thames Conservancy. No charge for Buoys. Tug usually employed, but not always necessary.
MIDDLESBRO'.	W. Pickering & Co., Docks, Middlesbro'.	In River or at Sea.
NEWPORT.	C. & E. Williams, 56, Dock-st., Newport, Mon.	In Dock or in Newport Rds.
PLYMOUTH.	F. Smith, 48, South-side-street, Plymouth.	In the Sound or in Dock.
SOUTH- AMPTON.	J. B. Thomas, High-street, Southampton. John Grose, 32, Oxford-street, "	In River, at Sea, or any place available.
SUNDERLAND	C. Hutchinson & Co., Norfolk-st., Sunderland. J. Morton, Savill-place, East, " J. W. Plumb, Bridge-crescent, " J. J. Wilson, 19, Hudson-road, "	Generally at Sea, or in Dock when weather is too heavy
SWANSEA.	B. R. Cousins, 20, Wind-street, Swansea. J. Webber & Son, 104, Oxford-street, "	In any Dock available or in the Bay. No charges in Dock
THE CLYDE DISTRICT.	A. Dobbie & Son, 24, Clyde-place, Glasgow. D. M'Gregor & Co., 37, Clyde-place, " M. Walker & Son, 44, Clyde-place, " Sewill, 126, Broomielaw, " Whyte & Co., 144, Broomielaw, " R. Love, 17, West Blackhall-street, Greenock. D. M'Gregor & Co., 36, Brymner-st., " M. Walker & Son, 32, Cathcart-street "	In Gourock Bay or Tail of the Bank. Usually done at Garelochhead, where Buoys are placed by Clyde Trustees. Charge for use of Buoys. Tug usually.
THE FORTH.	Matheson, 47, Shore, Leith. D. Stalker, 6, Commercial-street, "	In Granton Harb'r or Leith Roads. Power on board.
THE TAY.	P. A. Feathers & Son, 43, Dock-st., Dundee.	In any Dk. available. Not tug
THE TYNE.	T. L. Ainsley, Mill Dam, South Shields. C. & W. Hutchinson, Corstorphine town, " J. Morton, Mill Dam, " Wilson & Gillie, New Quay, North Shields. W. H. Moralee, Union-street, " G. Lowther, Quay, Newcastle-on-Tyne.	At sea off Tyne entrance. Bearings from objects on shore, or by sun.

TABLE,
Showing the dimensions of the Common Links, Weights and Scale
of Proofs for Chain Cables supplied for Her Majesty's Navy.

Diam. of Iron.	COMMON LINKS.		Stay Pins weight not to exceed	Weight of 100 fathoms in 8 lengths, 1 swivel, 8 shackles, not to exceed $\frac{1}{8}$ part.	Weight to be proved to	Which is equal to lbs. per circular $\frac{1}{4}$.
	Mean length 6 diam. of Iron not to exceed $\frac{1}{8}$ of a diam.	Mean width 3 6 diam. not to ex- ceed $\frac{1}{8}$ of a diam.				
in.	in.	in.	oz.	cwt. qr. lb.	Tons.	lbs.
$4\frac{1}{2}$	27	16 2	318 937	972 0 0	218 7	378 1
4	24	14 4	224	768 0 0	201 6	441 1
$3\frac{1}{2}$	21	12 6	150	588 0 0	176 4	504 1
$3\frac{1}{4}$	19 1	11 7	120 148	507 0 0	161 6	535 5
3	18	10 8	94 5	432 0 0	145 8	567 1
$2\frac{1}{2}$	16 1	9 9	72 789	363 0 0	129 3	598 5
$2\frac{1}{4}$	15	9 0	54 69	300 0 0	112 1	630 1
$2\frac{1}{2}$	14 1	8 55	47 5	270 0 0	101 1	...
$2\frac{1}{4}$	13 1	8 1	40	243 0 0	91 1	...
$2\frac{1}{2}$	12 1	7 65	33 584	216 0 0	81 1	...
2	12	7 2	28 0	192 0 0	72	...
$1\frac{1}{2}$	11 1	6 75	23 0	168 0 0	63 1	...
$1\frac{1}{4}$	10 1	6 3	18 76	147 0 0	55 1	...
$1\frac{1}{2}$	9 1	5 85	15	126 0 0	47 1	...
$1\frac{1}{4}$	9	5 4	11 81	108 0 0	40 1	...
$1\frac{1}{2}$	8 1	4 95	9	90 0 0	34	...
$1\frac{1}{4}$	7 1	4 5	6 836	75 0 0	28 1	...
$1\frac{1}{2}$	6 1	4 05	4 983	60 3 0	22 1	...
$1\frac{1}{4}$	6	3 6	3 5	48 0 0	18	...
$1\frac{1}{2}$	5 1	3 15	2 344	36 3 0	13 1	...
$1\frac{1}{4}$	4 1	2 7	1 473	27 0 0	10 1	...
$1\frac{1}{2}$	4 1	2 475	1 137	22 2 21	8 1	...
$1\frac{1}{4}$	3 1	2 25	854	18 3 0	7	...
$1\frac{1}{2}$	3 1	2 025	622	15 0 21	5 1	...
$1\frac{1}{4}$	3	1 8	437	12 0 0	4 1	...
$1\frac{1}{2}$	2 1	1 575	293	9 0 21	3 1	...

ADMIRALTY CRANE CHAIN.

Close linked for Rigging, Cranes, &c., extreme length of link not to exceed 5 diam., and to be proved by a Proving Machine.

in. diam.	tons.	in. diam.	tons.	in. diam.	tons.
$1\frac{1}{2}$	31 1	$1\frac{1}{4}$	27	$1\frac{1}{8}$	24
$1\frac{1}{4}$	27	$1\frac{1}{8}$	24	$1\frac{1}{4}$	21
$1\frac{1}{8}$	24	$1\frac{1}{4}$	21	$1\frac{1}{8}$	18
$1\frac{1}{4}$	21	$1\frac{1}{8}$	18	$1\frac{1}{4}$	15
$1\frac{1}{8}$	18	$1\frac{1}{4}$	15	$1\frac{1}{8}$	12
$1\frac{1}{4}$	15	$1\frac{1}{8}$	12	$1\frac{1}{4}$	9
$1\frac{1}{8}$	12	$1\frac{1}{4}$	9	$1\frac{1}{8}$	6
$1\frac{1}{4}$	9	$1\frac{1}{8}$	6	$1\frac{1}{4}$	3

FORMULA FOR SAFE LOAD ON CHAINS (WORKING LOAD).

D = Diam. in fths of an inch.
W = Safe Load in tons.

$$D = \sqrt[3]{8 \cdot W}$$

$$W = \frac{D^3}{8}$$

Thus in $\frac{3}{4}$ in. Chain, D = 6

$$\text{Then } W = 6^3 = \frac{36}{8} = 4\frac{1}{2} \text{ tons.}$$

$$D = \sqrt[3]{8 \cdot W} \text{ or } \sqrt[3]{8 \cdot 4\frac{1}{2}} = \sqrt[3]{36} = 4\frac{1}{2} \text{ tons.}$$

or fths of an inch.

REMOVAL OF WRECKS.

The "Wrecks Removal Act," 1877, gives powers to the Local Harbour Authority at every port to clear away any wreck forming an obstruction, in default of the owner's proceeding to do so, and to re-imburse itself from the sale of any materials recovered, either of the ship or of its cargo. Where there is no local authority, the lighting and buoying authority is to have jurisdiction, and the same powers of removal, re-imbursing itself in the same manner.

As, however, the expenses of recovery of the materials of an iron ship greatly exceed the value of the materials when recovered, certain of the principal harbour authorities have applied for, and have obtained, further powers, and the Thames and Humber Conservancies, the Mersey Harbour Board, the Clyde Lighthouse Trust, and the Commissioners of Cork and of Waterford Harbours, have, with some others, power to enforce payment by the owners of a wrecked ship of all expenses incurred in the removal of the obstruction.

The "Wrecks Removal Act," 1887, has been amended by the "Wrecks Removal Amendment Act," 1889, which extends the meaning of the word "obstruction" in the former Act.

In France, the measure of liability is now limited to the value of the ship and cargo. By abandonment of these the owner of a vessel wrecked in French waters escapes all further liability to the Government.

STANDING RULES FOR STEAM VESSELS AT SEA.

Officer of the Watch to keep his look-out on the Bridge, not leaving it except when necessary. At night he will be careful to see, from time to time, that the side and masthead lights are burning brightly, and kept trimmed; that the look-out man is at his post, and that the Ship is steered her course. Where an order book is not kept, the course given to be marked on the Log-slate (which should always be kept in the Chart-room), the Officer relieving to examine same before taking charge. The bearing of the North Star to be noted frequently and entered in the Log, with the direction of the Ship's head at the time of observation. Amplitudes never to be neglected. All courses given are by the Bridge or Standard Compass. The Officer in charge of the Deck to observe if any change or difference takes place between any or either of the Compasses, *i.e.*, more than usual, if so, call the Master. Log to be hove every two hours, if Patent Log is towing it should be verified by common Log. Barometer registered every four hours, and to be frequently noted during unsettled weather. Masters and Officers are respectfully requested NEVER to forget the three L's—LATITUDE, LOOK-OUT, and LEAD. No Chart-room ought to be without Celestial Maps hung up.

The Master, when leaving the Deck for rest, shall see that Chart is on the table for the use of the Officer in charge, with instructions to be called on all occasions of doubt.

Pump wells to be sounded by Carpenter at 8 a.m. and at 8 p.m., and to be reported to Chief Officer who reports same to Captain previous to making eight bells; and wells to be sounded not less than once in four hours during bad weather, any unusual quantity of water to be reported to Captain and Engineer of watch. Carpenter to note soundings on the board (where one is kept) in addition to verbal report. Officer of the watch to report changes of weather, particularly so in cases of fog, heavy rains and haze, a large number of Ships, or anything unusual connected with the Ship, such as thick volumes of smoke going right ahead, so that the course may be altered if prudent to do so.

Watch on deck to be kept round the wheel-house, so as to be ready for Officer's orders, and save him from leaving the Bridge to look for the hands.

Master, Officers, and Carpenter to see that all Steering Gear is in working order.

Chief Officer to see that the Forecastle is cleaned out at proper times; also to see the Winches are always in working order.

Carpenter to work all Sluice Valves once a week, and as a rule keep them closed at sea, except when wanted to run water to Engine-room.

Carpenter to look after all Tarpaulins and Wedges for Hatchway Battens, and during fine weather the ventilator covers are to be taken off, and one hatch from each hatchway, and to be closed again before dark. Chief Officer to see that the coal trimmers keep the grating on bunker holes, and put covers on every evening coming in dark; any neglect of this to be reported to the Chief Engineer.

The Ash Shoot is to be used for the purpose of keeping the Ship clean.

GENERAL RULES TO BE OBSERVED ON BOARD SHIP IN PORT OR AT ANCHOR.

The Officer to see that the Anchor Lamp is burning brightly before leaving the deck. Deck never to be left without a look-out.

Chief Officer has general charge, and will see that a proper account of Cargo and Stores is kept both in taking in and discharging, and also see that the Carpenter looks at limbers, and sees that the pumps are all clean and tank cocks in working order, and all scuppers clear in 'tween decks before cargo is stowed there; the Chief Officer to see the Shackles of Chain Cables are in working order (White Lead will be found the best thing for this purpose). Wood Pins (American Elm is good for pins).

Second Officer, and also Third, will be under directions of Chief Officer either to tally cargo or to look after holds, and, if necessary, to keep a hold book. Ship never to be left without an Officer on board except in Harbour or Dock, and not then until the Watchman is charged, and Watchman not to leave until one of the Officers is present.

* * Any suggestions for further information will be appreciated.

JAS. HENDERSON, 45, West Sunnyside, Sunderland.
British Shipmasters' & Officers' Protection

AIDS TO MEMORY, IN RHYME.

By THOMAS GRAY, Assistant Secretary, Board of Trade.

Two Steamships (When all three lights I see ahead,
Meeting. } I port my helm and show my RED.

Two Steamships (GREEN to GREEN or RED to RED—
Passing Clear. } Perfect safety—go ahead!

Two Steamships Crossing.

NOTE.—This is the position of greatest danger; there is nothing but good look-out, caution and judgment, with prompt action.

All ships must keep a good look-out, and steamships must stop if necessary.

If to my Starboard RED appear,
It is my duty to keep clear—
To act as judgment says is proper—
To Port—or Starboard—Back—or Stop—
But when upon my Port is seen
A Steamer's Starboard light of GREEN
There's naught for me to do but see
That GREEN to Port keeps clear of

SHIPPING ACTS.

DIGEST OF LAWS RELATING TO THE CARRIAGE OF PASSENGERS BY SEA, WITH APPENDIX, AS EMBRACED IN "THE PASSENGERS ACTS 1855 AND 1863." VOYAGES FROM UNITED KINGDOM.

Title and Scope of Acts.

- Section 1, Act 1855. Repeals Act of 1852.
 Section 2, Act 1863. Commencement of Act 1863.
 Section 13, Act 1863. Both Acts to be construed as one.
 Section 2, Acts 1855 and 1863. Short title of Acts and reference.
 Section 3, Act 1855. Definition and number and gender clause.
 Section 3, Act 1863. Definition of "passenger ship."
 Section 4, Act 1855. Ships and voyages to which Acts extend and exemptions.
 Section 4, Act 1863. Mail steamers not exempt.
 Section 5, Act 1855. Penalty on fraudulently using certificate of exemption, or using fraudulent certificates.

Machinery for executing Act.

- Section 6, Act 1855. Board of Trade to carry Act into execution.
 Section 7, Act 1855. Board of Trade may sue and be sued in the name of their Secretary or one of themselves, and to be exempt from personal liability.
 Section 8, Act 1855. Board of Trade to appoint Emigration Officers and Assistants in the United Kingdom for purposes of Act. Governors to appoint in the Colonies.
 Section 9, Act 1855. Duties of Emigration Officers to be performed by Officers of Customs in certain cases.
 Section 10, Act 1855. Facilities to Emigration Officers to inspect any ship, whether passenger ship or not.
 Sections 11 and 17, Acts 1855 and 1863. No passenger ship to be cleared without Emigration Officer's certificate that the requirements of the Act have been fulfilled, or without bond being given to the Crown.
 Section 13, Acts 1853 and 1863. Passenger ship clearing out or sailing without obtaining Emigration Officer's certificate or giving bond to the Crown to be forfeited.

Matters relating to Ship to be attended to before sailing, Number of Passengers, Fittings, Stores, Surgeon, &c.

- Section 13, Act 1855. Passengers to be carried only on two decks. Cabin passengers may be carried in poop or deck house in addition, if their number does not exceed one to every 100 tons of the ship's reg. tonnage.
 Section 14, Act 1855. Rules for determining number of passengers to be carried.
 Section 5, Act 1863. Number of passengers to be limited only by space, and not by tonnage check.

Section 15, Act 1855. Acts of 16 and 17 Vic., cap. 84, *not* to be repealed.

Section 16, Act 1855. Two lists of passengers to be delivered by master of every ship before clearance. Returns of deaths and births at sea to be sent to the Registrar-General by Custom House Officers and Consuls abroad.

Section 6, Act 1863. Cabin passengers to be included in lists.

Section 17, Act 1855. Lists of additional passengers embarked after clearance also to be delivered.

Section 18, Act 1855, and Section 7, Act 1863. Penalty on stowaways and those aiding them.

Section 19, Act 1855. All passenger ships to be surveyed. Appeal from Surveyor's report.

Section 20, Act 1855. Regulations as to beams and decks.

Section 21, Act 1855. Regulations as to arrangement and size of berths.

Section 22, Act 1855. Berthing of passengers. Single men to be in a separate compartment. Sexes to be berthed separately, except husband and wife, or children under 12 years.

Section 23, Act 1855. Berths not to be removed until passengers landed.

Section 24, Act 1855. Hospitals.

Section 25, Act 1855. Privies.

Section 26, Act 1855. Light and ventilation.

Section 27, Act 1855. Anchors, night signals, fire-engines, compasses, buoys, chronometers to be carried. Provisions regarding boats from beginning of Section to words "immediate use at sea" repealed by Merchant Shipping (life saving and appliances) Act, 1887.

Section 28, Act 1855. Manning.—Appeal against Emigration Officer's judgment as to efficiency of crew.

Section 29, Act 1855. Articles dangerous or injurious to be prohibited as cargo or ballast. Stowage of cargo and stores.

Section 8, Act 1863. Cattle in limited numbers and under conditions may be carried.

Section 30, Act 1855. Computation of voyages for sail steam vessels. Board of Trade may declare length of voyage in certain cases.

Section 31, Act 1855. Provisions and water for passengers and crew to be surveyed by Emigration Officer. Like article to be of equal quality. Additional water for cooking.

Section 32, Act 1855. Emigration Officer may mark bad provisions to be landed.

Section 33, Act 1855. Water casks and tanks.

Section 34, Act 1855. Proviso for touching at intermediate ports to fill up water.

Section 35, Act 1855. Dietary scale.

Section 9, Act 1863. Full issue of lime juice in the tropics.

Section 10, Act 1863. Soft bread may be substituted for bread-stuffs.

Section 36, Act 1855. Size of messes. Provisions to be issued daily before two o'clock, and such as require cooling to be in good state.

Section 37, Act 1855. Board of Trade may alter dietary scale.

Section 38, Act 1855. Passengers' stewards.

Section 39, Act 1855. Cook and cooking apparatus.

Section 40, Act 1855. In what cases interpreters must be carried.

Section 41, Act 1855. In what cases a medical man must be carried.

Section 42, Act 1855. Qualification of medical men.

Section 43, Act 1855. Medicines and medical comforts.

Section 44, Act 1855. Medical inspector of passengers and medicines, &c. Proviso where no medical inspector can be obtained.

Section 45, Act 1855. Re-landing sick passengers.

Passengers' Rights before, during, and after the voyage.

Section 46, Act 1855. Return of passage money to sick passengers re-landed.

Section 47, Act 1855. Return of half-passage money to sick cabin passengers re-landed.

Section 48, Act 1855. Subsistence money to be paid to passengers so re-landed.

Section 49, Act 1855. Return of passage money if passage not provided according to contract.

Section 50, Act 1855. Subsistence money in case of detention.

Section 51, Act 1855. Stores to be replenished when ships put back, and report to be made immediately to Emigration Officer.

Section 52, Act 1855. Passengers' rights in case of wreck or other disaster off the coast. They may be landed for the ship to be repaired.

Section 53, Act 1855. The Secretary of State, Governor or Consul may pay expenses of taking off passengers at sea.

Section 54, Act 1855. Governors or Consuls may send on to their destination shipwrecked passengers, if the master of the ship fail to do so.

Section 55, Act 1855. Expenses incurred under last two sections to be a Crown debt.

Section 56, Act 1855. Insurance of passage-money not to be void on account of nature of the risk.

Section 57, Act 1855. Passengers not to be landed elsewhere than at destination.

Section 58, Act 1855. Passengers to be maintained 48 hours after arrival.

Section 59, Act 1855. Passengers' right of action preserved.

Miscellaneous Provisions.

Section 60, Act 1855. Rules may be prescribed by order in council for health, cleanliness, and ventilation.

Section 61, Act 1855. Surgeon and master to enforce such rules.

Section 62, Act 1855. Copy of Act and extract of Order in Council to be kept and exhibited on board.

Section 63, Act 1855. Sale of spirits on the voyage prohibited.

Section 64, Act 1855. Bond to the Crown by master, &c., in duplicate.

Section 65, Act 1855. Bond when owner, master, or charterer resides abroad.

Section 66, Act 1855. Counterpart of bond to be forwarded to colony.

Section 67, Act 1855. In the absence of agreement to the contrary the owner to be responsible in respect of any default in complying with requirements of Act.

Passage Brokers.

Section 66, Act 1855. No passage broker to act without a license.

Section 67, Act 1855. How passage brokers' licenses may be obtained (bond with two sureties), and how forfeited.

Section 69, Act 1855. Passage brokers to employ no agents except in writing.

Section 70, Act 1855. Penalty on persons fraudulently inducing others to engage passengers.

Section 71, Act 1855. Contract tickets to be given to cabin as well as other passengers, and to be *without* stamps.

Section 72, Act 1855. Penalty for altering or inducing any person to part with contract ticket.

Section 73, Act 1855. Summary remedy for breach of regulations in contract ticket provided.

Section 74, Act 1855. Penalty on cabin passengers and masters, &c., omitting to produce contract tickets.

Section 75, Act 1855. Penalty on persons acting as "emigrant runners" without license and badge, and on those employing them.

Section 76, Act 1855. Mode of licensing and registering "runners."

Section 77, Act 1855. "Emigrant runner's" license to be renewed annually.

Section 78, Act 1855. Penalty on "runners" for certain acts of misconduct, and on persons using "runner's" badges not lawfully issued to them.

Section 79, Act 1855. Fresh badges may be obtained in case of loss or mutilation of old ones.

Section 80, Act 1855. Runners not entitled to commit from any passage broker unless acting with his authority, nor emigrants for procuring them passages.

Section 81, Act 1855. List of runners to be exhibited by b and sent to Emigration Officers.

Section 82, Act 1855. Trustees of docks may pass bye regulating landing and embarkation of emigrants, and for emigrant porters. Bye-laws to be approved by Secretary.

Section 83, Act 1855. Penalty for falsifying documents passages from the Board of Trade; for falsely assuming their agent; and on personation.

Clauses Relating to Penalties and Procedure

Section 84, Act 1855. By whom penalties and monies to be recovered.

Section 85, Act 1855. Tribunals for adjudicating complaints under the Act.

Section 86, Act 1855. Police and stipendiary magistrates, Scotland sheriffs, &c., have the same power as justices.

Section 87, 1855. No objection allowed or correction for want of form.

Section 88, Act 1855. Application of penalties thereout may be given to party aggrieved.

Section 89, Act 1855. Burden of proof lies on exemption from Act. Proof of negatives.

Section 90, Act 1855. Proof of being Government Officer.

- Section 91, Act 1855. Passengers to be competent as witnesses.
 Section 92, Act 1855. Tender of amends.
 Section 93, Act 1855. Limitation of actions against officers executing these Acts.
 Section 94, Act 1855. Limitation of legal proceedings generally.

Voyages from the Colonies.

- Section 95, Act 1855. Colonial voyages defined.
 Section 96, Act 1855. Extension of Act to "Colonial voyages" with exceptions.

Section 97, Act 1855. Governors may proclaim length of voyages, with scale of diet, medicines, &c. Copy of such proclamation to be evidence and enforceable in any part of British dominions.

Section 98, Act 1855. Provision for survey of ships and appointment of surgeons in the Colonies.

Section 99, Act 1855. Governor-General of India may adopt the Act.

Voyages to the United Kingdom.

Section 100, Act 1855. List of passengers brought into the United Kingdom to be delivered to an Emigration Officer, by whom returns of births and deaths at sea are to be made to Registrar-General.

Section 101, Act 1855. Number of passengers limited by tonnage and space, as in the case of passenger ships from the United Kingdom.

Section 102, Act 1855. Provisions and water to be issued to passengers brought into the United Kingdom.

Appendix to Acts.

Sections 5, 6, and 7, Act 1872. Transfer of administration of Passenger Acts to Board of Trade by Sections 5, 6, and 7 of Merchant Shipping Act, 1872.

Passengers' Amendment Act 1870. Conveyance of naval and military stores authorised in passenger ships.

Copy notice in *London Gazette* of June 7, 1864, reducing declared length of voyage for certain steamers to North America.

Copy notice in *London Gazette* of June 9, 1882, amending entire scale for computation of voyages.

Copy notice in *London Gazette* of April 29, 1856, authorising shipowners to use another victualling scale instead of scale B in section 35 of Passenger Act, 1855.

Order in Council of August 9, 1866, requiring ships with fifty passengers to carry a surgeon on any voyage.

Order in Council of February 3, 1863, for preserving order in passenger ships to Victoria carrying as many as ten unprotected females.

Order in Council of January 7, 1864, for promoting order and health in passenger ships.

Order in Council of June 28, 1875, respecting distilling apparatus in passenger ships.

Section 37, Act 1874. As to registration of births and deaths at sea. Entry by master in official log book, and copy of same to be delivered to Registrar-General of Births and Deaths.

Suggestions by Board of Trade in official notice to masters of emigrant ships respecting boats and fire at sea.

Sections 18, 19, and 20 of the Merchant Shipping Act, 1876. Provisions against double survey of passenger ships. Survey of

foreign passenger steamer or emigrant ship. Power of Board of Trade to modify Passengers' Acts as to food, space, and accommodation in emigrant ships.

DIGEST OF MERCHANT SHIPPING ACTS.

MERCHANT SHIPPING ACT, 1854.

PART I.—Powers of Board of Trade and its Officers.—Sections 1 to 16. Board of Trade has superintendence of all matters relating to merchant ships and seamen. Board to issue all instruments for carrying Act into effect, which are exempted from stamp duty. Penalty for forging seal and for fraudulent substitution of forms, &c. All fees and payments received by Board of Trade to go to Mercantile Marine Fund, and all fines to Consolidated Fund. Powers to Board's officers, including superintendents of mercantile marine offices, customs officers, and consuls to muster crews and inspect ship's papers. Board of Trade inspectors may report upon accidents or damage, &c., examine witnesses on oath, and inspect documents. Penalties for non-compliance and obstruction.

PART II.—Deals with British Ships—their Ownership and Registry.—Sections 17 to 29. Application of this part of Act to all Her Majesty's dominions. Ownership of British ships to be vested in British subjects or naturalised citizens, or bodies corporate legally established. British ships to be registered with following exceptions:—(1) Those registered before operation of Act. (2) Ships not exceeding 15 tons burthen employed in the coasting trade of United Kingdom, or in British possessions where managing owners reside. (3) Ships not exceeding 30 tons burthen without whole or fixed deck and employed solely in fishing or trading within waters of British North America as defined. Ships not legally registered are not entitled to recognition as British ships and not permitted to trade to sea.

Rules for Measurement of Tonnage.—Computation of tonnage, allowances, ships measured, under Rule II., with cargo on board for purposes other than registry, ascertained tonnage to be correct until remeasurement. Remeasurement of register may be made, but not compulsory. Remeasurement of engine improperly extended provided. See Merchant Shipping Act, 1889.

Registry of British Ships.—Sections 30 to 33. Registrar of British Ships in United Kingdom and British possessions are the principal officers of customs; in Crown Colonies, government officers. Declaration for registry and prior survey. Declaration of individuals and body-corporate. Penalty on builder for false declaration. No notice taken of trusts.

Certificate of Registry.—Sections 44 to 54. Certificate to be granted. Changes of owners and masters to be registered. Power to grant new certificate provided. Provisional certificates to be delivered up. Customs delivery may be required under penalty for detention. Penalty for using improper certificate. Ships lost or ceasing to be British to be delivered up.

Transfers and Transmissions.—Sections 55 to 60. Declaration of ships or shares therein. Declaration by transfer. Transmission of shares by death, bankruptcy, &c. with necessary proof. Unqualified owners entitled to register.

may apply to Court to sell ship. Power of Court and limit of time for application.

Mortgages.—Sections 66 to 108. Mortgages of ships and shares. Rights of mortgagees and their priority. Certificates of mortgages and sales and rules applicable thereto. New registry and transfer of registry provided on change of ownership. Penalties for forging certificates and for false declaration of national character of ship.

PART III.—*Masters and Seamen.*

Local Marine Boards.—Section 109.—Application of this part of Act. Sections 110 to 121.—Establishment of Local Marine Boards at ports where already in existence, and at such other ports as Board of Trade appoint. Election of members. Owners of foreign-going or home trade passenger ships have one vote for every 250 tons of shipping. Maximum number of votes to be ten for any one person. Voting powers of joint owners. List of voters to be kept by Collector of Customs, and revised every three years. Persons entitled to vote are only entitled to election. Board of Trade may appoint nominees on Board.

Mercantile Marine Offices.—Section 10 of Merchant Shipping Act, 1873, changes name of "Shipping Offices." Sections 122 to 130.—Establishment of shipping offices at Local Marine Board ports. Local Marine Boards may appoint and control officials of those offices, but their number and salaries controlled by Board of Trade. Business of these offices to be the engagement and discharge of seamen, securing their presence on board, and facilitating sea apprenticeships, &c., &c. Penalties against officials for misconduct. Board of Trade may conduct business of these offices at Custom Houses, where no Local Marine Boards exist, and at Sailors' Homes in London under their direct control.

Examinations and Certificates of Masters and Mates.—Sections 131 to 140. Examinations are instituted for masters and mates for certificates of competency. Local Marine Boards, where established, conduct examinations and appoint examiners under sanction and regulations of Board of Trade. Powers of Board of Trade to grant certificates of service to officers of certain rank in navy, and to others.

Certificated Officers necessary in certain Ships.—Foreign-going ships and home trade passenger ships, before proceeding to sea from United Kingdom, must each have a master possessing an appropriate certificate of competency or service. In addition, a foreign-going ship must have the first and second mates, or only mate, as the case may be, and in a home trade passenger ship the first or only mate, as the case may be, possessed of an appropriate certificate of competency or service. Ships of 100 tons burthen or upwards shall not go to sea unless at least one officer besides the master possesses a certificate as only mate, or one of a higher grade. Penalties for non-compliance and against persons for fraud. Certificates for foreign-going ships are available for home trade passenger ships. Authority of Registrar-General of Seamen as to granting, cancellation, and record of certificates and duplicates.

Apprenticeships to the Sea Service.—Sections 141 to 145. Superintendents of Mercantile Marine to bind apprentices and charge fees: Indentures of boys bound by guardians or overseers of the poor to be witnessed by two justices. All indentures exempt from stamp duty. Execution must be in duplicate, and registration necessary

at a Mercantile Marine Office within seven days after date. Assignments, desertions, cancellations, deaths, also to be reported. Apprentices to be brought before superintendent before each voyage in a foreign-going ship, and indentures produced.

Engagement of Seamen.—Sections 146 to 167. Board of Trade may license persons to procure seamen. Penalty against unlicensed persons supplying seamen (£20), and against employment of unlicensed persons, or receiving seamen illegally supplied (£20): penalty for receiving remuneration from seamen for shipping them, £5.

Agreements with Seamen.—Masters of every ship, except of ships less than 80 reg. tons employed in the coasting trade, must have agreements with their crews in the form sanctioned by the Board of Trade. Colonial ships may have agreements according to the law of their own possessions. All foreign-going British ships must have their agreements signed in the presence of a superintendent of Mercantile Marine. Agreements to be in duplicate, one copy being retained for Registrar-General of Seamen. Substitutes in the place of men who have signed, but have not kept their engagements from unforeseen causes, should, where practicable, be engaged at Mercantile Marine Office, but, if otherwise, should have the agreement read, and their signatures therein attested by a witness.

Running Agreements.—Foreign-going ships making voyages averaging less than six months may have running agreements; those must expire on the next following 30th June or 31st December, or on first arrival at port of destination in United Kingdom after such date, or upon discharge of cargo consequent upon arrival. Changes in crew on these agreements must be made at Mercantile Marine Office. Indorsement on agreement by master necessary that all such changes have been duly made, and penalty for false indorsement, £20. Home trade ships not compelled to sign agreements at Mercantile Marine Office, but the agreements must be duly read, and the signatures of the crew attested by a witness before vessel puts to sea, or as soon after as possible. Shipping a seaman without obtaining due execution of agreement is an offence entailing a penalty of £5 against master; likewise provided against master or owner in case of a home trade ship. Changes in crews of foreign-going ships shall be reported to the master before leaving United Kingdom, to nearest superintendent before a penalty of £5. Seamen engaged in Colonies to be reported before Shipping Master or Officer of Customs. Seamen engaged abroad must be shipped by the master before Commencement of voyage, under a penalty of £20. Certificates of competency or service and necessary officers must be produced at Mercantile Marine Office on engagement, before outward clearance granted.

Deposit of Agreements.—Agreements of foreign-going ships must be delivered at Mercantile Marine Office within 48 hours after arrival in United Kingdom, or upon discharge of crew, whichever happens. Certificate of delivery or inward clearance must be granted; penalty provided for non-delivery.

Home Trade Agreements.—Not to extend beyond 30th June, or 31st December, or first arrival in United Kingdom after such dates, or on discharge of cargo consequent upon arrival; home trade Agreements to be delivered at Mercantile Marine Office within 21 days after the dates of each half-year above mentioned, then granted. In home trade passenger ships the necessary certificate of master and office

penalty of £5 incurred for default. Alterations in agreements void unless attested and made with consent of all parties. Falsifying agreement a misdemeanour. A copy of agreement must be made and put where accessible to crew at commencement of voyage, under penalty against master of £5. Seamen discharged before voyage after signing agreement, entitled besides any wages earned, to compensation not exceeding one month's wages.

Allotments of Wages.—Sections 168 to 169. Regulations as to grant of allotment notes. Allotment notes may be sued on summarily by certain relatives of seamen. (See also M.S. Act, 1880, section 3.)

Discharge and Payment of Wages.—Sections 170 to 176. (See also M.S. Act, 1880, section 4.) Discharge of seamen in foreign-going ships to be before Superintendent of Mercantile Marine, Master to deliver account of wages to each seaman. On discharge, master to give seamen certificates of discharge, and return certificates of competency or service to officers. Superintendent may decide questions referred to him by parties in disputes, his decision being final. Settlement of wages and signatures to release. Master to make reports of character of seamen.

Remittances of Wages and Savings Banks.—Sections 177 to 180. (See also M.S. Act, 1880, section 3.) Facilities by Board of Trade for remitting seamen's wages, allotment money, and establishment of savings banks at Mercantile Marine Offices.

Legal Rights of Seamen to Wages.—Sections 181 to 187. Legal rights to wages under different circumstances defined, period within which to be paid. (See also M.S. Act, 1880, section 4.)

Mode of recovering Wages.—Sections 188 to 191. Seamen may sue in a summary manner before justices except where sum amounts to over £50, when proceedings must be in a superior court. Masters' remedies for recovery of wages same as seamen's.

Relief to Seamen's Families out of Poor Rates.—Sections 192 to 193. Relief to seamen's families chargeable against wages, and notice to be given by owner and charge to be enforced on return of seamen.

Wages and Effects of Deceased Seamen.—Sections 194 to 204. Master to take charge of effects and pay, and hand over same with wages to Consul or Superintendent of Mercantile Marine. Accounts to be rendered and penalties for neglect. Administration of estates of deceased seamen by Board of Trade. Mode of payment under wills and provision for payment to creditors, &c. Unclaimed wages go to Consolidated Fund.

Leaving Seamen Abroad.—Sections 205 to 213. Seamen discharged abroad to receive proper certificate of discharge before Consul, and to be sent home at owner's expense. Forcing seamen on shore a misdemeanour. No seaman to be left abroad without certificate of some functionary. Wages to be paid when seamen left behind on ground of inability, such wages to be treated as money due to seamen, subject to payment of passage and subsistence home. Distressed seamen may be sent home at public expense, and masters of ships compelled to take them.

Volunteering into the Navy.—Sections 214 to 220. Conditions under which seamen are allowed to leave their ships in order to enter the Navy, and regulations as to payment of wages to Queen's officer on account of such seamen, &c.

Provisions as to Health and Accommodation.—Sections 221 to

230. Survey of provisions and water on complaint provided. Allowance for short provisions. Weights and measures to be kept by masters. Expenses of medical attendance in cases of illness and death. Inspectors of medicines how appointed. Expenses of injury, illness, hurt, &c., if paid by Consul are recoverable from owner. Medicines to be carried in ships.

Power of making Complaint.—Section 232. Seamen to be allowed to go on shore to make complaint before a justice.

Protection of Seamen from Imposition.—Sections 233 to 238. Charges against seamen's wages invalid. Debts recoverable. Penalties against persons going on board without permission (see also M.S. Act, 1880, section 5). Penalty for solicitations by lodging-house keepers.

Discipline.—Sections 239 to 259. Offences on board ship defined with penalties attached. Removal of masters. Power of Board of Trade or Local Marine Boards to investigate charges of incompetency or misconduct against officers, and cancel or suspend certificates of competency or service. Desertion or refusing to join (see also M.S. Act, 1880, section 10). Acts of smuggling or embezzlement. Entry of offences to be made in official log and read over to offenders. Deserters may be arrested and sent on board. Proof of desertion. Cost of imprisonment to extent of £3 chargeable against wages. Forfeiture of wages and how applied. Fines to be deducted from wages and paid to superintendents. On change of masters all documents to be handed to successor.

Crimes committed on the High Seas and Abroad.—Sections 267 to 270. Offences of seamen abroad. Conveyance of offenders and witnesses to United Kingdom or British Possessions. Inquiry into cause of death provided and nature of evidence.

Registration of and Returns respecting Seamen.—Sections 271 to 279. Register Office of shipping and seamen established at Port of London. Delivery of lists of crew for foreign-going ships at Mercantile Marine Office within 48 hours after arrival. Lists of crews in home-trade ships to be delivered within 21 days after termination of each 30th June and 31st December. Lists to be delivered in case of transfer or loss. Lists of crew to be deposited at Custom Houses and Consulates when vessels are abroad.

Official Logs.—Sections 280 to 287. Official logs to be kept in form sanctioned by Board of Trade. Entries to be made in due time therein. Entries as to convictions, offences, punishment of crew, illnesses and injuries, deaths, births, marriage, quitting of ship, wages of deceased seamen and sale of their effects, collisions, &c., necessary. Entries how to be signed. Penalties for not keeping official log and neglecting to make entries. Delivery of official logs at end of voyage, or in cases of transfer, or loss of ship necessary.

East Indies and Colonies.—Section 288 to 290. Provisions Act by East Indian and Colonial Governments to their own ships may be enforced throughout the Empire, and conflict of laws.

PART IV.—*Safety and Prevention, or Accidents.*

Sections 291 to 326. Sections 292, 293 and 294, regarding boats carried by sea-going ships, repealed by Merchant Shipping (Life-saving and Appliances) Act of 1888, except so far as they relate to sea-fishing boats, registered under Sea Fisheries Act, 1868. Definition of steamships defined, and survey of passenger steamships.

Passenger steamships when to be surveyed. Powers of surveyors and nature of inspection. Passenger certificates and power of Board of Trade to cancel or grant. Penalty for carrying passengers in excess of number specified in certificate. Twelve persons allowed to be carried in any ship other than the master and crew, the owner, and his family and servants, without certificate. (See Merchant Shipping Act, 1876, section 16.) Offences against Act.

PART V.—*Pilotage.*

(See also Merchant Seamen's Pilotage Act, 1889).

Sections 330 to 338. This part of Act applies to United Kingdom only. General jurisdiction of Pilotage Authorities and power to exempt from compulsory pilotage. Regulations as to grant of licences and certificates, and to alter and reduce rates as well as limits of pilotage districts. Power to make bye-laws, reserving liberty of persons aggrieved to appeal to Board of Trade to rescind or annul same. Pilotage authorities to make full returns to Board of Trade of particulars of pilotage. Power to transfer powers of local authorities in case of their failure to Trinity House. Masters and mates may, if examined and passed, be licensed to pilot particular ships. Pilot boats to be licensed and marked with certain characteristics. Pilot licences to be registered, and delivered up when required or on death.

Compulsory Pilotage.—Mode of enforcement and penalties. Home trade passenger ships to employ qualified pilots, unless they have certificated masters and mates. Mode of granting certificates as pilots to masters and mates.

Rights, Privileges, and Remuneration of Pilots.—Penalties for receiving or offering improper rate. Allowances. Penalties for unqualified persons acting. Occasions when unqualified persons may act in absence of licensed pilot or when ship in distress. Offences of pilot for misconduct, &c. Trinity House powers. To alter regulations and appoint sub-commissioners, &c. Compulsory pilotage in London district. Penalty on masters failing to display usual signal-flags passing Dungeness. Exemptions of certain ships not carrying passengers from compulsory pilotage in London and Trinity House outport districts. Rates of pilotage (Trinity House) and payments to be made to pilot fund (Trinity House).

PART VI.—*Lighthouses.*

Management of Lighthouses.—Sections 389 to 416. Buoys and beacons to be in Trinity House, Commissioners of Northern Lighthouses, &c. Powers of inspection granted in Scotland and Ireland. Board of Trade possess powers to inspect.

Light Dues.—Power to levy. Dues subject to revision by Her Majesty in Council. Ship not to be cleared without production of receipt for light dues. Power to lighthouse authorities to erect lighthouses, buoys and beacons, and collect dues therefor.

Surrender of Local Lighthouses.—May be surrendered to general lighthouse authorities.

Damage to Lights, &c.—Penalty for injuring £50.

Prevention of False Lights.—Power to prohibit; and, if not obeyed, power to abate.

PART VII.—*Mercantile Marine Fund.*

Sections 417 to 431 (see also Mercantile Marine Fund Act, 1884). Sums to be carried to Mercantile Marine Fund and application

thereof. Fund includes light dues and all sums and fees received by Receivers of Wreck in Part VIII. of Act. Power of Treasury to advance money for lighthouse purposes. Board of Trade may borrow on credit of Fund. Lighthouse authorities to account for monies to Board of Trade. Ships of lighthouse authorities exempt from harbour dues.

PART VIII.—*Wrecks, Casualties, and Salvage.*

Sections 432 to 501 (see also Merchant Shipping Act, 1876). Inquiries into wreck. Inquiries may be instituted. Formal investigation before justices. Stipendiary magistrates' powers. Certificates of competency or service of officers may be required to be delivered up until close of inquiry.

Appointments and Duties of Receivers of Wreck.—Board of Trade given powers to appoint. Powers of Receiver in case of accidents. All articles washed ashore to be delivered to Receiver. Powers to suppress plunder and disorder. General powers in cases of distress. Power to examine on oath and obtain declarations. Persons finding wreckage to deliver up same and give notice. Powers of seizure of wreckage.

Salvage.—Salvage payable in respect of services in the United Kingdom. Board of Trade may pay salvage in respect of preservation of life out of Mercantile Marine Fund. Settlement in case of dispute left to Justice of Peace where amount is not above £200, above this sum to Court of Admiralty in England or Ireland and Court of Session in Scotland. Payment apportionment and method of enforcing salvage monies. Unclaimed wreck to be sold; also to be given up to Lord of Manor in certain cases. Jurisdiction High Court of Admiralty and offences in respect of wreck. Salvage by Her Majesty's ships not allowable in respect to risk of Her Majesty's property. Admiralty must consent before claim by naval ships for salvage. Voluntary agreements may be made effective. (See also 27 and 42.)

PART IX.—*Liability of Shipowners.*

Sections 502 to 516. Applies to all Her Majesty's dominions. Limitation of liability. Owner not liable in respect of certain articles. Provision for separate losses.

Mode of Procedure.—In cases of loss of life or persons. Power of Board of Trade in proceedings. If Board declines to institute proceedings, individuals may bring proceedings in case of several claims on owner, &c., &c.

PART X.—*Legal Procedure.*

Sections 517 to 543. Punishment of offences and penalties. Stipendiary magistrate to have same powers as justices. Offence deemed to have been committed where ship or where offender may be. Jurisdiction over ships of Service of summons or other document good if personal on ship. Distress on ship for sums ordered to be paid. Time in summary proceedings. Power to arrest foreign ships in case of damage. Power to detain ships in certain cases on application made to Judge of Admiralty.

Legal Procedure in Scotland.—Offences, complaints and penalties defined.

PART XI.—*Miscellaneous.*

Sections 548 to 551. Contracts may be made with natives in India, binding them to go to Australia, and thence to serve in other ships of United Kingdom. Sailors' Homes. Corporations may grant sites for sailors' homes. Colonial Legislatures may alter provisions of Act. Expenses incurred by Commissioners of Customs in suits or prosecutions under this Act may be paid out of Consolidated Fund.

MERCHANT SHIPPING (AMENDMENT) ACT, 1855.

An Act to facilitate erection and maintenance of Colonial light-houses. Gives power to fix dues, to be levied with consent of Colonial Legislature. Extends powers of relieving destitute seamen to Colonies, as provided under Part III. of Merchant Shipping Act, 1854. Power of relief to destitute Lascar seamen, &c.

SEAMEN'S SAVINGS BANK ACT, 1856.

Power to Board of Trade to establish savings banks for seamen, and to constitute Mercantile Marine offices branch savings banks. Commissioners for Reduction of National Debt to receive deposits and pay interest. Board of Trade to make regulations for conduct of banks. Punishment for forgery or for false representations in order to obtain deposits or interest. Mode of criminal proceedings. (See also Merchant Shipping Act, 1880, section 3, as to payment of allotments to savings banks by seamen.)

MERCHANT SHIPPING ACTS, &C., AMENDMENT ACT, 1862.

Sections 3 to 4. Equities not excluded by Merchant Shipping Act, 1854. Tonnage rates under local Acts may be levied on the registered tonnage.

Certificates for Engineers.—Sections 5 to 12 (see also Part III. Merchant Shipping Act, 1854). Steamships to carry certificated engineers. A foreign-going steamship, if over 100 nominal horse power, must have two engineers: the first possessing a "first-class certificate," the second a "second-class certificate," or one of a higher grade. Every foreign-going steamship of less than 100 nominal horse power shall have an engineer possessing a "second-class engineer's certificate," or one of a higher grade. Every sea-going home trade passenger steamship must have as its only or first engineer an engineer possessing a "second-class certificate," or one of a higher grade. Examinations for engineers' certificates of competency instituted under Board of Trade. Power of Board of Trade and Local Marine Boards to investigate charges of misconduct against engineers and cancel or suspend certificates.

Masters and Seamen.—(See also Part III. of Merchant Shipping Act, 1854.) Sections 13 to 38. Part III. of Act to apply to fishing boats, lighthouse vessels, and pleasure yachts, with certain exceptions. Title of shipping masters in principal Act of 1854 changed to superintendents, and term "shipping offices" to "mercantile marine offices." Punishment for embezzlement in mercantile marine offices provided. Payment of wages to seamen abroad under Section 209 of principal Merchant Shipping Act, 1854, may be made by Bill under certain circumstances.

Deceased Seamen's Wages.—Board of Trade have power to recover from owner same as wages earned. Ships not heard of within 12

months to be deemed lost. Relief of distressed seamen to be regulated by Board of Trade. (See Sections 211 and 212 of Act of 1854.)

Cancelling Certificates of Masters, Mates, and Engineers.—Power of cancelling rests with Court that hears case. Certificate to be delivered up under penalty when suspended or cancelled.

Safety.—Sections 25 to 38. Regulations *re* lights. Fog signals and sailing rules. Regulations to be published, and masters and owners bound to obey them. Breach of regulations to imply wilful default of person in charge. Board of Trade surveyors have power to inspect for enforcing regulations. Rules for harbours under Local Acts to be in force. In collisions one ship bound to assist other. Surveys of steamers and penalties provided against passengers and others for misconduct.

Pilotage.—(See also Merchant Seamen's Pilotage Act, 1889.) Sections 39 to 42 (see also Part V. Merchant Shipping Act, 1854). Powers of local authorities to exempt from compulsory pilotage. Provisional orders of Board of Trade may transfer pilotage jurisdiction and make arrangements as to rates and districts, &c.

Lighthouses.—(Part VI., M.S. Act, 1884.) Sections 43 to 48. Lights under local authorities to be inspected by Trinity House and other general authorities. Liability for and recovery of light dues provided. Application of accounts and dues.

Wreck and Salvage.—(See Part VIII. M.S. Act, 1884.) Sections 49 to 56. Summary Jurisdiction Act extended in small salvage cases. Receiver may appoint a valuer. Crown rights to wreck unclaimed provided.

Liability of Shipowners.—(See also Part IX. of M.S. Act, 1854.) Sections 54 to 56. Shipowners' liability limited in being answerable for damage for loss of life or personal injury to extent of £15 for each ton of his ship's tonnage; nor in respect of loss or damage to ships' goods or merchandise beyond £8 per ton (registered tonnage). Proof of passengers on board ship may be accepted from master's list or duplicate list under "Passengers' Act, 1885."

Arrangements concerning Lights, Sailing Rules, Salvage, Measurement of Tonnage in case of Foreign Ships.—Sections

64. Foreign ships in British jurisdiction subject to regulations preventing collisions at sea. Power of foreign Powers to regulations which may be applied to their ships on high. Provisions concerning salvage applicable to foreign Powers with their consent. Foreign countries adopting British measurements not to be remeasured in this country. Orders in Council and their effect.

Delivery of Goods and Lien for Freights.—Sections 65 to 68. Interpretation of terms. Power of shipowners to enter an order of lading in default of entry and landing by owner of same. If landed and shipowner gives notice his lien for freight ceases. Lien may be discharged on payment of freight. Warehouseman may sell goods by public auction after 90 days, if freight not charged. How sale of goods effected and application of proceeds.

Schedule to Act, Table A, Enactments repealed. Table B, Chargeable on examination of Engineers. Table C, Regulations preventing collisions at sea.

MERCHANT SHIPPING ACT, 1867.

Measures, Medical Stores, and Anti-Scorbutics.—Lime juice and other anti-scorbutics are to be provided and kept on certain ships, viz.:—All foreign-going ships, except those

European ports or Mediterranean, and those bound to eastern coast of North America, north of 35th deg. of N. latitude. Lime and lemon juice and sugar to be served out daily at the rate of an ounce per day to each member of crew. Penalty provided against seamen for refusal to take same. Medicines and medical stores to be kept on board all ships being navigated between the United Kingdom and places outside it, according to Board of Trade published scale. Lime or lemon juice to be obtained from bonded warehouse, and to be of due strength, and properly inspected. Penalty provided for selling medicines of bad quality, &c. Seamen's expenses in case of illness through neglect of owner or master to be paid by them. Seaman forfeits his wages when illness is caused by his own default.

Accommodation of Seamen on Board British Ships.—Seventy-two cubic feet to be allowed for each man, and not less than twelve superficial feet of measurement on deck or floor, and to be properly constructed and clear.

Rules for Medical Inspection of Seamen.—Board of Trade or Local Marine Board may appoint medical inspector at any port who may examine seamen seeking employment on the application of master or owner. Jurisdiction over offences committed by British subjects on board foreign ships.

MERCHANT SHIPPING ACT, 1871.

Section 5. Ship's draught of water to be recorded by master in official log book on leaving docks, ports, or harbours.

Rules to be Observed in Naming Ships.—Ship's name to be described according to that which she is registered. Penalties provided for breach of Act (£100).

Change of Name.—Application to change name must be made to Board of Trade.

Masters and Seamen.—(See Part III. of Merchant Shipping Act, 1854.) Sections 7 and 8. Survey of a ship alleged to be unseaworthy—in proceedings against seamen or apprentices for desertion or refusing to join—may be demanded by one-fourth of the men belonging thereto, if unseaworthiness, overloading, &c., is alleged. If the number of seamen exceed 20 this survey may be demanded by not less than 5 such seamen. Board of Trade or other surveyor may act at discretion of Court hearing case. Naval Courts may direct a survey of any ship which is the subject of proceedings before them.

Safety.—(See Part IV. Merchant Shipping Act, 1854.) In collisions, masters of vessels to give name and port of registry of each vessel to each other.

MERCHANT SHIPPING ACT, 1872.

Measurement.—Sections 3 and 4. Transfer to Board of Trade of duties of Custom Officers with respect to measurement of ships; and to Registrar-General of Seamen of duties with respect to registry of ships.

Passenger Ships.—Sections 5 to 8. Transfer to Board of Trade of powers of Emigration Commissioners. Annual survey of passenger steamers provided.

Pilotage.—Powers of Trinity House in connection with pilotage laws and rates in certain districts.

Chain Cables.—Fees and expenses in relation to testing by Trinity House to be charged on Mercantile Marine Fund, &c., &c.

THE MERCHANT SHIPPING ACT, 1873.

Registry Marks.—Sections 1 to 6. (See Part II. Merchant Shipping Act, 1854.) British ships for future to be marked with name on each of her bows, and name and port of registry on stern; scale of feet indicating draught of water to be marked on each side of stem and stern posts. Board of Trade have power to exempt certain classes of ships. Penalty against owner or master provided for non-compliance. Particulars of clear side to be recorded as well as draught of water. (See Merchant Shipping Act, 1871, section 5.) Foreign ships not to be placed on British register without consent of Board of Trade. Reductions on re-registration of abandoned ships.

Masters and Seamen.—(See Part III. Merchant Shipping Act, 1854.)

Agreements with Seamen.—Sections 7 to 10. Instead of stating nature and duration of voyage as required by section 249 of Act of 1854, may state maximum period and places where voyage *not* to extend. Compensation to seamen for unnecessary detention on charge of desertion provided. Power of Board of Trade to establish mercantile marine offices, and to hold examinations at ports where no local marine Board exists. Power of Board of Trade to vary requirements as to boats. Duties of masters in collision, and failure to render assistance or give names of vessels rendered a misdemeanour, &c. Signals of distress, and signals for pilots—penalty for not displaying or improperly using. Right to use private signals on registering same. Notice of apprehended loss to be given to Board of Trade under penalty. Restrictions on carriage of dangerous goods, and forfeiture of same. Section 15, repealed by Merchant Shipping (Life Saving and Appliances) Act, 1888.

Miscellaneous.—Sections 29 to 33. Fees in respect of surveys payable to Board of Trade. Board of Trade in legal proceedings may sue in name of any of their officers, &c.

MERCHANT SHIPPING ACT, 1876.

Unseaworthy Ships.—Sections 4 to 12. Sending an unseaworthy ship to sea a misdemeanour. Obligation of shipowner to crew to secure seaworthiness. Power of Board of Trade to detain unsafe ships, and procedure for such detention. Constitution of Court of Survey for appeals. Procedure and powers of Courts of Survey. Liability of Board of Trade and shipowner for costs and damages. Power to require from complainant security for costs. Powers of detaining officers, and supplemental provisions as to detention of ships.

Foreign Ships Overloading.—Section 13. Application to foreign ships of provisions as to detention when loading at ports in United Kingdom. Modifications.

Appeal on Refusal of certain Certificates to Ships.—Section 14. Appeals by shipowners feeling aggrieved provided, or refusal of certificates as to equipment, &c., under Merchant Shipping and Passengers' Acts.

Passenger Steamers and Emigrant Ships.—Sections 16 to 21. Twelve passengers may be carried in any steamer without passenger certificate. Colonial passenger certificates to be deemed valid. Power of Board of Trade to dispense with survey of foreign ships holding foreign certificates of survey as passenger ships, attested by British Consul. Certain signals, lights, and buoys necessary in all passenger ships.

Deck Cargoes.—Section 23. Space occupied by deck cargo made liable to dues. Tonnage thereof to be ascertained and entered in official log by an officer of Board of Trade or Customs. Penalties for carrying deck loads of timber in winter (arriving between October 31, and April 16) provided.

Deck and Load-Lines.—Sections 25 to 28. Deck lines to be marked on British ships (except under 80 tons register employed solely in coasting trade, ships employed solely in fishing and pleasure yachts). Description of lines. British vessels (with similar exceptions) to be marked with load-line circular discs as defined, the centre of which indicates the maximum load-line in salt water. Disc to be recorded on clearing outwards at Custom House, and in articles of agreement and in official log. Load-line to be marked on coasting vessels of over 80 tons register. Penalty of £100 provided for offences in relation to marks on ships.

Investigations into Shipping Casualties.—Sections 29 to 33. Appointment of Wreck Commissioner by Lord Chancellor provided. Assistance of assessors provided when cancellation or suspension of officers' certificates involved. Power of Wreck Commissioner to investigate cases of distress, stranding and missing ships. Board of Trade fix places of investigation.

Detention.—Section 34. Enforcement of detention and penalty for illegally proceeding to sea with detaining officers on board.

Managing Owner.—Section 36. Name of managing owner or ships' husband to be duly registered at Custom House of port of registry who is under all obligations and liabilities of Merchant Shipping Acts.

Foreign Ships.—Section 37. With consent of foreign States provisions of any portion of Merchant Shipping Acts may be applied by Order in Council to ships of those States when out of their own jurisdiction.

SHIPPING CASUALTIES INVESTIGATION ACT, 1879.

Section 2. Rehearing of and appeal against investigation into shipping casualty or misconduct of officers provided.

Section 3. Rules as to investigations into shipping casualties and misconduct of officers. List of assessors to be in force for three years only, and to be appointed under Section 30 Merchant Shipping Act, 1876. Certificates of Officers.—Where cancellation or suspension likely to be involved, two assessors to assist in hearing. Investigations into casualties. Where to be held.

MERCHANT SHIPPING (CARRIAGE OF GRAIN) ACT, 1880.

Section 3. General obligation to prevent cargo shifting.

Section 4. Precautions against shifting of grain laden in Mediterranean or Black Sea or North America. Carriage between decks prevented except for quantity for feeding cargo in hold. Exemption where feeders are provided. Where grain carried in bulk without feeders one-fourth to be in bags laid upon grain in bulk. Oats or cotton seed not included in this provision, nor ships of less than 400 reg. tons not engaged in Atlantic trade; nor ships laden in Mediterranean or Black Seas provided with compartments in holds and with longitudinal bulkheads or shifting boards; nor to ships in which grain does not exceed *one-half* of whole cargo, and the rest wool, flax, or flour, or other suitable cargo properly stowed. General provisions for proper bulkheads or shifting boards and safe stowage.

Section 5. Ships laden in accordance with regulations of Board of Trade are exempted from penalties provided by Act.

Section 6. Notice by master of kind and quantity of grain cargo to be given to British Consular Officer or Officer of Customs abroad.

Sections 8 and 9. Board of Trade has power to enforce Act. Mode of prosecution and recovery of penalties, &c.

MERCHANT SEAMEN (PAYMENT OF WAGES AND RATING) ACT, 1880.

Advance Notes.—Section 2. Advance notes made illegal, and when beyond one month's wages. (See Merchant Shipping Act, 1889, Chapter 46, Section 2.)

Allotments.—Section 3. Seamen may leave half their wages under allotments to relatives mentioned in Section 169 of M.S. Act, 1854, or may leave allotment payable to Seamen's Saving Bank.

Payment of Wages.—Section 4. Seaman entitled on leaving ship at end of engagement to £2, or one-fourth of balance due him—whichever is least; remainder to be paid within two clear days (exclusive of any Sunday or Bank Holiday) after leaving ship. Delivery of wages account at Mercantile Marine Office instead of to seaman himself at master's option (see Section 171, M.S. Act, 1854). Final settlement of wages may be left to superintendent if seaman consents. Wages in case of non-payment within required period run on until final settlement. In cases of dispute where sum does not exceed £5 superintendent may arbitrate.

Section 5. Penalty provided against persons being on board without permission before seamen leave, £20 (see Section 237, M.S. Act, 1854). This provision may be applied to foreign-going ship by order in Council.

Rating of Seamen.—Section 7. Seamen entitled to be rated A. on proof of certain sea-service.

Section 8. Power of Court to rescind contracts between master or owner and seaman or apprentice.

Seamen's Lodging-houses.—Section 9. Board of Trade may license and approve of bye-laws and regulations made by Sanitary Authority at ports.

Desertion.—Section 10. Imprisonment for desertion abolished but power of arrest and conveyance on board provided. (See Merchant Shipping Act, 1889, Section 3.)

Section 11. Benefits of Employers' and Workmen's Act extended to seamen.

MERCHANT SHIPPING (FISHING BOATS) ACT, 1889.

Sections 3 to 12. Application of Act. Apprentices in sea-fishing service, and agreements with boys under sixteen.

Sections 13 to 23. Articles of agreement to be made with boys in fishing service.

Sections 24 to 27. Deals with the wages and discharge of boys and the duties of skippers.

Sections 28 to 35. Provisions as to discipline, and penalties in the sea-fishing service.

Sections 36 to 42. Issue of certificates of competency to skippers and second hands by Board of Trade.

Sections 43 to 47. Enactments relating to discipline, punishments, ill-treatment, and casualties. Discharge of skippers or owners and seamen.

Sections 48 to 55. Miscellaneous.

THE MERCHANT SHIPPING (MISCELLANEOUS) ACT, 1887.

The provisions of this Act, passed in the 1886 session of Parliament, amending in certain minor particulars some of the enactments relating to merchant shipping and seamen, may be learned in the following summary :—

Section 1 gives the title of the Act as above, and recites that it may be construed as one with the Merchant Shipping Act, 1854, and amending Acts, and that this Act and those Acts may be cited collectively as the Merchant Shipping Acts, 1854 to 1887.

Fees on Examinations of Engineers.—Section 2 recites that by Section 7 of the Merchant Shipping Act Amendment Act, 1862, it is provided that fees payable by applicants for certificates of competency as engineers shall be carried to the account of the Mercantile Marine Fund, and that at the time of the passing of that Act the salaries of the surveyors who conduct the examinations were paid out of that fund.

And, further, that by Section 39 of the Merchant Shipping Act, 1876, it was provided that the salaries of the said surveyors should be paid out of moneys provided by Parliament; and by Section 4 of the Merchant Shipping (Fees and Expenses) Act, 1880, it was provided that the fees paid by the applicants for engineers' certificates of competency should be paid into the exchequer.

And it further recites that under Section 3 of the Merchant Shipping (Expenses) Act, 1882, the salaries of the said surveyors are charged on and paid out of the Mercantile Marine Fund, and it is expedient that the fees paid by the applicants for examination should be carried to the account of the Mercantile Marine Fund. It is, therefore, enacted that the fees payable in pursuance of Section 7 of the Merchant Shipping Act Amendment Act, 1862, shall cease to be payable into the exchequer; and all such of those fees as have been levied since April 1, 1883, or are hereafter levied, shall be carried to the account of the Mercantile Marine Fund.

Powers of Colonial Governors re Measurement and Registry of Ships.—Section 3 recites that doubts have been expressed as to the extent of the powers conferred on certain Colonial authorities by Section 31 of the Merchant Shipping Act, 1854, and it is therefore enacted that the powers conferred by that section on the Governor, Lieutenant-Governor, or other person administering the Government in a British possession, shall be deemed to include the following powers :—

(a) Power to approve a port or place within the possession for the registry of ships; and (b) power to appoint surveyors within the limits of the possession to survey and measure ships for registry or re-registry as British ships, in accordance with the provisions of the Merchant Shipping Acts, 1854 to 1887.

Public Records in Custody of Registrar-General of Seamen.—Section 4 enacts that all documents which, under Section 277 of the Merchant Shipping Act, 1854, or enactments amending same, are required to be recorded and preserved by the Registrar-General of Seamen, shall be deemed to be public records and documents within the meaning of the Public Record Offices Acts, 1838 to 1887, and those Acts shall, where applicable, apply to such documents in all respects as if they had been specifically referred to in the said Acts.

Explanation of Meaning of Lighthouses.—Section 5 enacts that in the Merchant Shipping Act, 1854, and amending Acts, the expres-

sion "lighthouses" shall, in addition to the meaning therein assigned to it, include sirens and all other descriptions of fog signals; and the expression "new lighthouse" shall include the addition to any existing lighthouse of any approved light, or any siren, or any description of fog signal.

Repeals.—Section 6 is the last in the Act, and merely repeals Section 48 of the Seamen's Fund Winding-up Act, 1851, and Section 4 of the Merchant Shipping (Fees and Expenses) Act, 1880.

MERCHANT SHIPPING (LIFE SAVING AND APPLIANCES) ACT, 1888.

Section 1. Obligation of owners and masters to carry boats and other appliances in British merchant ships for saving life.

Section 2. Authority of Board of Trade to appoint a consultative committee for framing rules under Act. Tenure of office, &c.

Sections 3 and 4. Power to make rules as to life-saving appliances, and penalties provided for breach of rules.

Sections 5, 6, and 7. Power of Board of Trade to inspect and enforce rules. Rules not to apply to sea-fishing boats. Power provided to proceed for breach of other Acts.

Sections 8, 9, and 10. Repeals after first publication of rules, sections 292, 293, and 294 M. S. A., 1854, as to boats to be carried, except so far as they relate to sea-fishing boats, registered under Sea Fisheries Act, 1868. Repeals section 27 of Passengers Act, 1855, from the beginning to words "immediate use at sea;" and repeals section 15 M. S. A., 1873.

Sections 9 and 10. Construction and short title of Act.

Schedule 1 of Act specifies constitution of committee and number of representatives from Chamber of Shipping, Liverpool and Glasgow Associations, Council of Naval Architects, Shipmaster Societies, Seamen's Societies, Lloyd's Committee, Lloyd's Register Society, and Committee of London Underwriters.

Schedule 2. Matters for which rules are to provide, including arrangement of British ships into classes; boats, buoys, and apparatus and appliances to be carried.

MERCHANT SHIPPING ACT, 1889.

CHAPTER 46.—*Amendment of Shipping Act, 1854, and amending same.*

Section 1. Masters of ships to have same remedies for recovery of disbursements and for liabilities incurred on account of wages, and power given to Court to investigate accounts, set offs, and counterclaims.

Section 2. Advance Notes legalised to the extent of wages, and Section 2 of the Merchant Seamen (Payment and Rating) Act, 1880, repealed.

Section 3. Deserters.—Register of seamen who failed to join their ships after signing Agreement with Mercantile Marine Office for inspection of masters.

Section 4. Payment of Wages to British Seamen.—Money to be made at rate of exchange current at place notwithstanding anything to contrary in Agreement.

Section 5. Provisions of Merchant Shipping Act, 1854, Amending Acts shall apply to ships propelled by other mechanical power.

Section 6. This Act to be cited as "Merchant Shipping Act, 1889," and to be construed as one with Merchant Shipping Act, 1854, and subsequent Acts amending the same.

MERCHANT SHIPPING (TONNAGE) ACT, 1889.

Section 1. In ascertaining register-tonnage no deduction shall be allowed in respect of any space which has not been first included in measurement of ship's tonnage. Repeals in Section 21, paragraph 4, Merchant Shipping Act, 1854, the words "First, that nothing shall be added for a closed-in space solely appropriated to the berthing of the crew, unless such space exceeds one-twentieth of the remaining tonnage of the ship, and in case of such excess, the excess only shall be added." And, secondly, and in Section 22, paragraph 2, of the same Act, the words "Subject to the deduction for a closed-in space appropriated to the crew as mentioned in Rule 1," shall be repealed. This Section is not to apply until after the expiration of five years from the passing of this Act to ships where deductions prohibited have been made before the 10th March, 1889, or to ships the building of which was commenced before that date, and which are registered between that date and the end of 1889, unless in either case before the expiration of the said five years the vessels are measured or re-measured in accordance with the provisions of this Act; but this exemption is not to extend to any ship in which the allowance for propelling-power space exceeds 50 per cent. of the gross tonnage.

Section 2. Allowance for engine-room in Steamers.—Space or spaces above crown of engine-room, and above the upper deck framed in and for the machinery or for admission of light and air, shall not be included in propelling-power space, except owner requests the Board of Trade in writing, and shall not be included in pursuance of such request, unless

(a) That portion is first included in measurement of gross-tonnage; and

(b) A surveyor appointed under Fourth Part of Merchant Shipping Act, 1854, certifies that it is duly constructed, safe, and seaworthy, and cannot be used for any other purpose.

Section 3. Deductions for Navigation Spaces.—The following deductions shall be made in ascertaining register-tonnage in measuring or re-measuring a ship, viz.:—

In Sailing Vessels—any space set apart and used exclusively for storage of sails.

In the case of any Ship—

(1) Any space used exclusively for accommodation of master.

(2) Any space used exclusively for working of the helm, the capstan, and anchor gear, or for keeping charts, signals, and other instruments of navigation, and boatswain's stores; and

(3) The space occupied by donkey-engine and boiler, if connected with the main pumps of the ship.

These deductions are subject to the following provisions, viz.:—

That Board of Trade Surveyor certifies as to their suitability and efficiency; that there must be permanently marked over every such space the purpose to which it is to be applied; and that the deduction on account of space for stowage of sails must not exceed 2½ per cent. of tonnage of ship.

Section 4. Deductions in certain Steamships.—In screw-steamships where an engine-room allowance of 32 per cent. of gross-tonnage has been allowed at time of passing the Act, and which any crew space on deck has not been included in gross tonnage, whether its contents have been deducted therefrom or not, the crew space shall be, on the application of the owner or by direction of the Board of Trade, measured and added to register-tonnage; and if it appears that with such addition the engine-room does not occupy more than 13 per cent. of the tonnage of the ship, the existing allowance of 32 per cent. shall be continued, notwithstanding anything in this Act.

Section 5. Measurement of Ships with Double Bottoms for Water Ballast.—If the spaces between the inner and outer plating is certified by Board of Trade surveyor to be not available for cargo stores or fuel, then depth required by Section 21, paragraph 2, of Merchant Shipping Act, 1854, shall be taken to be the upper side of inner plating of double bottom, which is to be deemed the floor-timber referred to in that section.

Section 6.—Re-measurement of Foreign Ships.—Where tonnage of any foreign ship materially differs from that which would be her tonnage under the Merchant Shipping Act, 1854, and Amending Acts, Her Majesty may by Order in Council direct that such ships may be remeasured in accordance with those Acts.

Section 7. That this Act be cited as the Merchant Shipping (Tonnage) Act, 1889, and be construed as one with the Merchant Shipping Acts, 1854, and the Acts amending the same.

THE MERCHANT SHIPPING (COLOURS) ACT, 1889.

Section 1. Red ensign usually worn by merchant ships is hereby declared to be the proper national colours for all ships and boats belonging to any subject of Her Majesty, except in the case of Her Majesty's or other ships allowed to wear other colours by Royal Warrant or by Admiralty.

Section 2. A ship belonging to any subject of Her Majesty shall, on a signal from one of Her Majesty's ships, and on entering or leaving any foreign port, and if of 50 tons gross or upwards, shall also, on entering or leaving any British port, hoist the proper national colours, under a penalty from the master of one hundred pounds. Sea-fishing boats registered under the Sea Fisheries Acts are exempted from this provision.

Section 3. Amendment of Section 105 of the Merchant Shipping Act, 1854.—Penalties incurred in respect of the improper hoisting of colours or of a pendant in British ships, with costs, may be recovered in Superior Courts in England, Ireland, or Scotland. Any offence mentioned in that section may also be prosecuted and penalty recovered as in the case of offences declared by Merchant Shipping Act, 1854, punishable by penalties not exceeding £100.

Section 4. Defines "one of Her Majesty's ships" as a vessel under command of an officer of Her Majesty's Navy on full pay.

Sections 5 and 6. Saving Admiralty powers in respect of red ensign usually worn by Merchant Ships, and citing this Act as the "*Merchant Shipping (Colours) Act, 1889.*"

MERCHANT SHIPPING (PILOTAGE) ACT, 1889.

Section 1. Application of Part 5, Merchant Shipping Act, 1854.—To remove doubts as to application of provisions in construction of that Act, the expression "ship" includes a foreign ship.

Section 2. Provisional Orders.—Board of Trade granted power to make provision for direct representation of pilots and shipowners on local pilotage authorities or any body appointed by local authority; and to extend limits of any pilotage district by including, where no pilotage authority exists, so however that in no area thus added there shall be no compulsory pilotage and no restriction on duly qualified persons to obtain licenses as pilots; and applies provisions of Section 40, Merchant Shipping Act Amendment Act, 1862, to provisional orders made hereunder.

Section 3. Powers of Committee, Commissioners, Sub-Commissioners, &c.—Powers given to those bodies to suspend, dismiss, or revoke certificates of pilots licensed for districts, and guilty of offences under Sections 365, 366, or 367 of Merchant Shipping Act, 1854.

Section 4. Appeals from Pilotage Authorities.—Pilots aggrieved by decisions of pilotage authorities with respect to suspension or dismissal or revocation, or by imposition of fine exceeding £2, or to application of any fund to which he has contributed, may appeal to County Court in jurisdiction, or to a police or stipendiary magistrate having jurisdiction within the port. On hearing appeals assessor of nautical and pilotage experience to sit with magistrate.

Provision as to selection and summoning of assessor; power of judge or magistrate to confirm, reverse, or modify penalty. Costs of pilotage authority payable out of its general funds or expenses. Rules regarding procedure to be made by County Court Judges and Secretary of State.

Section 5. Employment of Unqualified Pilots.—For employing unqualified pilot, after qualified pilot has offered to take charge, a master incurs a penalty of double amount of pilotage demandable for conduct of ship where same is being navigated outside a district in which pilotage is compulsory.

Section 6. Returns as to Pension Fund to be made in manner prescribed by local pilotage authorities to Board of Trade.

Section 7. Bye-laws as to Contributions to Pilotage Funds.—Powers of Section 333 of Merchant Shipping Act, 1854, shall extend to making bye-laws compelling masters and mates to contribute to Pilotage Funds, with provision as to limit of contributions.

Section 8. Application of Fees in respect of Pilotage Certificates.—To be applied to expenses incidental to examinations under Section 343 of the Merchant Shipping Act, 1854, and surplus to go to local superannuation fund of pilots, &c.

Section 9. Flag to be Displayed where Master or a Mate has a Pilotage Certificate.—To be displayed of description mentioned in Section 346 of Merchant Shipping Act, 1854; and failure to comply entails a penalty on master of £20. Holder of such a pilotage certificate is deemed a qualified pilot under Section 348, Merchant Shipping Act, 1854.

Section 10. Penalty on Ordinary Boat displaying Colourable Imitation of Pilot Flag.—Enacted that boats or ships not having on board licensed pilots displaying flags likely to deceive, be deemed an offence by master or owner entailing a penalty of £50.

Section 11. Recovery of Pilotage Dues.—Repeals Section 363 of Merchant Shipping Act, 1854, in so far as it enacts that pilotage dues shall not be recovered until dues so demanded have remained unpaid for seven days after time of demand.

Section 12. Application to Scotland.—Act applies with following modifications:—

Appeals under Act from pilotage authority shall be made to sheriff having jurisdiction.

Court of Session to make rules as to procedure in appeals.

Section 13. Application to Ireland.—Courts defined where appeals may be heard, and rules as to legal procedure.

Section 14. Repeals enactments defined in Schedule, which sets out certain words in Section 343 of Merchant Shipping Act, 1854, hereby repealed, as also certain words in Section 363 of same Act.

Section 15. Construction of Act—as one with Part V. of Merchant Shipping Act, 1854.

Section 16. Commencement of Act—To come into operation on 1st January, 1890.

Section 17. Short Titles.—Act to be called "Merchant Shipping (Pilotage) Act, 1889."

BOARD OF TRADE REGULATIONS.

Advance Notes.—Advance notes are now made illegal when exceeding one month's wages (see Section 2, Merchant Shipping Act, 1889, chapter 46). No deduction can be made against wages on account of such notes. Advances in cash, or through means of advance notes not exceeding one month's wages may be made and entered on the agreement.

Allotment Notes.—A seaman may insist on a stipulation in his agreement for the allotment of any part, not exceeding half his wages in favour of a relative (see Section 169, Merchant Shipping Act, 1854, and Section 3, Merchant Shipping Act, 1889). Allotment may be made in favour of the seaman's savings bank, or paid into his account. The first payment to relatives or persons shall begin at the end of a month, except in the case of savings bank, when the first payment is made at the end of the first month from signing agreement. Subsequent payments shall be made as agreed upon and stated in allotment note. Money issued to non-relatives cannot be recovered summarily. Migrations of allotment money may be paid by owners to the relatives of seamen by means of seamen's money order. Allotment forms may be had at the Mercantile Marine Office.

Discharge of Crews.—(See Section 187, Merchant Shipping Act, 1854, and Section 4, Merchant Shipping Act, 1889). Foreign-going ships must be discharged and their crews must be discharged at the Mercantile Marine Office. The wages must be paid to the crew at the time of discharge.

days after the seamen leave the ship, exclusive of any Sunday or Bank Holiday. Each seaman is entitled on leaving ship to £2, or one-fourth of balance due to him, whichever is least. Twenty-four hours' notice of the time of discharging crew must be given at Mercantile Marine Office. The official log book and articles of agreement must be delivered to the superintendent within forty-eight hours after ship's arrival, or upon discharge of the crew. On the completion of the discharge the master will receive the inward clearance, or BB certificate. The wages of seamen absent at the time of paying off may be deposited at the Mercantile Marine Office. Seamen may be discharged on board on application at a fee of 1s. for each man.

Deceased Seamen's Wages and Effects.—Masters are bound within 48 hours of the arrival of any foreign-going or home trade ship in the United Kingdom to deliver to the Superintendent of the Mercantile Marine Office the wages and effects of any seaman or apprentice who has died during the voyage, together with a proper account of same on the prescribed form, which may be obtained at that office. Even should no balance be due to seaman, the account must still be made out, and the fact shown thereon. Deduction for funeral, hospital, or medical expenses cannot be made where seamen have died from injuries received in service of the ship. Claims to the wages and effects of deceased seamen must be made by the relatives or next-of-kin on forms to be had at the Mercantile Marine Offices. Letters of administration or probate will be required where the amount of the wages exceeds £50.

Engagement of Crews.—Six hours' notice of time of engagement of crews for foreign-going ships must be given at Mercantile Marine Office. Individual engagements or discharges of members of crew on running agreements must also take place at Mercantile Marine Offices. For certificates of the necessary officers, which must be produced at time of engagement, see Section 136, Mercantile Shipping Act, 1854, and Section 5, Mercantile Shipping Act, 1862, herein. Seamen may be engaged on board on application at a fee of 1s. for each man engaged.

Surveys, Passenger Steamer Certificates and Surveys, Suez Canal Certificates, &c.—Every British steamship (not being a steam ferry boat working in chains) carrying more than 12 persons (other than the master, the crew, and the owner, his family, and servants), plying between any place or places in the United Kingdom, is, at stated periods, to be surveyed by persons appointed by the Board of Trade, and a certificate of such survey will be granted to the master or owner, without which such steamship will be unable (legally) to ply on any voyage or excursion. For these certificates of surveys the necessary forms must be filled up, and the fees paid thereon, at a Mercantile Marine Office. The same rules which apply to British passenger steamers also apply to foreign steamers when employed in carrying passengers between places in the United Kingdom.

The scale of fees for surveys of steamships for passenger certificates is:—100 reg. tons and under £4; over 100 and not ex. 300, £6; over 300 and under 900, £8; 900 and under 1,200, £10; 1,200 and under 1,500, £12; 1,500 and under 1,800, £14; 1,800 and under 2,100, £16; 2,100 and under 2,400, £18; and £2 for every additional 300 tons. The scale is for 12 months. For 6 months 6-12ths of the fee will be charged, for 9 months 9-12ths, and so on, at the rate of 1-12th for each month; but no fee is to be

less in amount than 3-12ths. In all cases of *new* steamships coming under survey for a passenger certificate *for the first time*, a full 12 months' fee must be paid, notwithstanding that a certificate for 12 months may not be required, and in no case of an incomplete declaration will less than 3-12ths be charged. Measurement of tonnage fees:—Under 50 reg. tons £1; 50 to 100, £1 10s; 100 to 200, £2; 200 to 500, £3; 500 to 800, £4; 800 to 1,200, £5; 1,200 to 2,000, £6; 2,000 to 3,000, £7; 3,000 to 4,000, £8; 4,000 to 5,000, £9; 5,000 and upwards, £10. A table of fees payable on miscellaneous surveys, change of name, inspection of boiler, tracings, &c., may be had at any Mercantile Marine Office, where all fees are payable.

CUSTOMS REGULATIONS AND CLEARANCE OF SHIPS.

If inward cargo be reported for exportation, a copy of report must be delivered to searcher under penalty.

Ships' Content.—This document containing particulars as to cargo and voyage with declaration attached must be delivered to Collector before clearance outwards.

Victualling Bill.—When duly signed by Collector or other proper Officer of Customs shall be the clearance and authority for departure of ship. Master of vessel outwards, in which goods are to be taken from United Kingdom to parts beyond the sea, must, before taking any goods on board, deliver to the Collector the inward clearance and enter outwards. Ships clearing foreign putting back to United Kingdom in distress or otherwise. Penalty provided against excessive deficiency in stores, having regard to the length of time between departure and return. Penalty on departing without being cleared £100.

Clearing in Ballast.—Ships not having any goods on board except stores borne upon the Victualling Bill, may be cleared in ballast. Vessels carrying passengers, and vessels laden with chalk to extent of more than one-third of their registered tonnage are chargeable with light dues.

Documents to be produced at Clearance.—For a British ship:—The register with the master's name endorsed thereon. The outward lights receipt. The AA certificate if engaged in foreign trade or BB certificate if in the home trade. NOTE.—Colonial ships are subject to the same laws as those of the United Kingdom, excepting when bound to their own colony where the voyage is to terminate, in which case such ships can proceed without certificated master and officers. For a foreign ship:—The measurement certificate, excepting for vessels belonging to countries which have adopted the British system of measurement. NOTE.—The measurement certificate is only valid for three years from the date thereof. On the production of these documents the clearance label is signed and returned to master.

Vessel carrying Passengers.—If proceeding to ports out of Europe, Mediterranean ports excepted, duplicate Passenger Lists must be furnished. Masters of British sailing ships carrying passengers must make the declaration that the vessel is furnished with the necessary number of boats under the Merchant Shipping Act.

Boat declaration not required from British passenger steamers, but production of Passenger Certificate necessary.

Ships under Passengers' Act must in addition have a bond executed in duplicate before the Clearing Officer by master and owner or charterer.

* *Outward Pilotage.*—For foreign vessels going beyond Brest the receipt for outward pilotage must be produced.

Bills of Health are issued at the clearing seat when required.

Coasting Trade Defined.—All trade by sea from any one part of the United Kingdom to another shall be deemed to be coasting trade. Penalty for coasting ship deviating from coasting voyage unless forced by unavoidable circumstances. Goods brought coastwise may be entered outwards without landing if not liable to duty.

Cargo Books must be kept by masters in the coasting trade under penalty. Transire and duplicate containing the necessary particulars signed by the master shall, in the coasting trade, before departure of vessel be delivered to the collector, who retains the duplicate and returns the original duly signed by him. This account shall be the outward clearance of the ship and the transire or pass for the goods therein.

Transires of Foreign Vessels.—Before issue of transire the agent applying for same is to produce a declaration made by the master showing the vessel's nationality.

COMPARISON OF THE DRAUGHT OF FOREIGN VESSELS WITH THE EQUIVALENT DRAUGHT IN ENGLISH FEET.

EGYPT.		AUSTRIA.		DENMARK & NORWAY.		FRANCE.		GERMANY.		HOLLAND.	
Alex- dra.	Eng.	Vienna.	Eng.	Dan.	Eng.	Fren.	Eng.	Hamb- burg.	Eng.	Amst- dam.	Eng.
ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.
0 3 0	3' 8"	0 3 0	6' 1"	0 3 0	3' 1"	0 3 0	3' 3"	0 3 0	2' 9"	0 3 0	3' 1"
0 6 0	7' 5"	0 6 0	3' 2"	0 6 0	6' 2"	0 6 0	6' 5"	0 6 0	5' 7"	0 6 0	6' 2"
0 9 0	11' 2"	0 9 0	9' 3"	0 9 0	9' 2"	0 9 0	9' 8"	0 9 0	8' 6"	0 9 0	9' 3"
1 0 1	1 3	1 0 1	0' 4"	1 0 1	0' 3"	1 0 1	1' 1"	1 0 1	0' 11' 5"	1 0 1	0' 3"
2 0 2	6	2 0 2	0' 9"	2 0 2	0' 6"	2 0 2	2' 2"	2 0 2	1' 11' 10"	2 0 2	0' 7"
3 0 3	9	3 0 3	1' 3"	3 0 3	1' 0"	3 0 3	3' 3"	3 0 3	2' 10' 5"	3 0 3	1' 0"
4 0 4	5	4 0 4	1' 8"	4 0 4	1' 3"	4 0 4	4' 4"	4 0 4	3' 10' 0"	4 0 4	1' 3"
5 0 5	6	5 0 5	2' 2"	5 0 5	1' 6"	5 0 5	5' 5"	5 0 5	4' 9' 5"	5 0 5	1' 7"
6 0 6	7	6 0 6	2' 7"	6 0 6	2' 0"	6 0 6	6' 7"	6 0 6	5' 9' 0"	6 0 6	2' 1"
7 0 7	8	7 0 7	3' 1"	7 0 7	2' 3"	7 0 7	7' 7"	7 0 7	6' 8' 5"	7 0 7	2' 4"
8 0 8	10	8 0 8	3' 6"	8 0 8	2' 6"	8 0 8	8' 9' 0"	8 0 8	7' 8' 0"	8 0 8	2' 7"
9 0 9	11	9 0 9	4' 0"	9 0 9	2' 9"	9 0 9	9' 10' 1"	9 0 9	8' 7' 5"	9 0 9	3' 1"
10 0 10	12	10 0 10	4' 5"	10 0 10	3' 2"	10 0 10	10' 11' 2"	10 0 10	9' 7' 0"	10 0 10	3' 4"
11 0 11	13	11 0 11	4' 9"	11 0 11	3' 6"	11 0 11	12' 0' 3"	11 0 11	10' 6' 5"	11 0 11	3' 8"
12 0 12	15	12 0 12	5' 3"	12 0 12	3' 9"	12 0 12	13' 1' 5"	12 0 12	11' 6' 0"	12 0 12	4' 1"
13 0 13	16	13 0 13	5' 8"	13 0 13	4' 2"	13 0 13	14' 2' 5"	13 0 13	12' 5' 5"	13 0 13	4' 4"
14 0 14	17	14 0 14	6' 2"	14 0 14	4' 5"	14 0 14	15' 3' 6"	14 0 14	13' 5' 0"	14 0 14	4' 8"
15 0 15	18	15 0 15	6' 7"	15 0 15	4' 8"	15 0 15	16' 4' 7"	15 0 15	14' 4' 5"	15 0 15	5' 1"
16 0 16	20	16 0 16	7' 1"	16 0 16	5' 2"	16 0 16	17' 5' 9"	16 0 16	15' 4' 0"	16 0 16	5' 5"
17 0 17	21	17 0 17	7' 6"	17 0 17	5' 5"	17 0 17	18' 7' 0"	17 0 17	16' 3' 5"	17 0 17	5' 8"
18 0 18	22	18 0 18	8' 0"	18 0 18	5' 8"	18 0 18	19' 8' 1"	18 0 18	17' 3' 0"	18 0 18	6' 2"
19 0 19	23	19 0 19	8' 5"	19 0 19	6' 2"	19 0 19	20' 9' 3"	19 0 19	18' 2' 5"	19 0 19	6' 6"
20 0 20	25	20 0 20	8' 9"	20 0 20	6' 4"	20 0 20	21' 10' 4"	20 0 20	19' 2' 0"	20 0 20	7' 0"
21 0 21	26	21 0 21	9' 3"	21 0 21	6' 8"	21 0 21	22' 11' 5"	21 0 21	20' 1' 5"	21 0 21	7' 4"
22 0 22	27	22 0 22	9' 8"	22 0 22	7' 1"	22 0 22	24' 0' 6"	22 0 22	21' 1' 0"	22 0 22	7' 8"
23 0 23	28	23 0 23	10' 2"	23 0 23	7' 4"	23 0 23	25' 1' 7"	23 0 23	22' 0' 5"	23 0 23	8' 2"
24 0 24	30	24 0 24	10' 7"	24 0 24	7' 8"	24 0 24	26' 2' 9"	24 0 24	23' 0' 0"	24 0 24	8' 6"

(Continued.)

COMPARISON OF THE DRAUGHT OF FOREIGN VESSELS
WITH THE EQUIVALENT DRAUGHT IN ENGLISH FEET
continued.

GREECE AND ITALY. <i>Old Stand'd</i>		PORTUGAL.		RHINLAND. <i>Old Stand'd.</i>		RUSSIA.		SPAIN.		SWEDEN.	
Gre'k Ital.	Eng.	Portu- guese.	Eng.	Rhin- land.	Eng.	Russ- ian.	Eng.	Mdrid	Eng.	Carls- crona	Eng.
ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.
0 3	0 3'4	0 3	0 3'3	0 3	0 3'1	0	0 3'2	0 3	0 2'8	0 3	0 3'0
0 6	0 6'8	0 6	0 6'5	0 6	0 6'2	0	0 6'4	0 6	0 5'6	0 6	0 6'0
0 9	0 10'3	0 9	0 10'8	0 9	0 9'3	0	0 9'6	0 9	0 8'3	0 9	0 8'9
1 0	1 1'7	1 0	1 0'9	1 0	1 0'4	1 0	1 1'7	1 0	0 11'1	1 0	0 11'9
2 0	2 3'4	2 0	2 1'8	2 0	2 0'7	2 0	2 3'5	2 0	1 10'9	2 0	1 11'8
3 0	3 5'0	3 0	3 2'8	3 0	3 1'1	3 0	3 5'2	3 0	2 9'4	3 0	2 11'7
4 0	4 6'7	4 0	4 3'7	4 0	4 1'4	4 0	4 7'0	4 0	3 8'5	4 0	3 11'6
5 0	5 8'4	5 0	5 4'7	5 0	5 1'8	5 0	5 8'7	5 0	4 7'6	5 0	4 11'6
6 0	6 10'1	6 0	6 5'6	6 0	6 2'1	6 0	6 10'5	6 0	5 6'8	6 0	5 11'5
7 0	7 11'7	7 0	7 6'5	7 0	7 2'5	7 0	7 11'0	7 0	6 5'9	7 0	6 11'4
8 0	8 1'4	8 0	8 7'5	8 0	8 2'9	8 0	8 10'0	8 0	7 5'0	8 0	7 11'3
9 0	9 3'1	9 0	9 8'4	9 0	9 3'2	9 0	10 3'7	9 0	8 4'2	9 0	8 11'2
10 0	10 4'8	10 0	10 9'4	10 0	10 3'6	10 0	11 5'5	10 0	9 3'3	10 0	9 11'1
11 0	11 6'4	11 0	11 10'3	11 0	11 3'9	11 0	12 7'2	11 0	10 2'4	11 0	10 11'9
12 0	12 8'1	12 0	12 11'2	12 0	12 4'3	12 0	13 9'0	12 0	11 1'5	12 0	11 10'9
13 0	13 9'8	13 0	14 0'2	13 0	13 4'6	13 0	14 10'7	13 0	12 0'7	13 0	12 10'8
14 0	14 11'5	14 0	15 1'1	14 0	14 5'0	14 0	15 12'0	14 0	13 10'9	14 0	13 10'8
15 0	15 1'2	15 0	16 2'1	15 0	15 5'4	15 0	16 1'2	15 0	14 10'7	15 0	14 10'7
16 0	16 2'8	16 0	17 3'0	16 0	16 5'7	16 0	17 2'2	16 0	15 10'3	16 0	15 10'6
17 0	17 4'5	17 0	18 3'9	17 0	17 6'1	17 0	18 4'0	17 0	16 9'2	17 0	16 10'5
18 0	18 6'2	18 0	19 4'9	18 0	18 6'4	18 0	19 5'7	18 0	17 8'3	18 0	17 10'4
19 0	19 7'9	19 0	20 5'8	19 0	19 6'8	19 0	20 7'5	19 0	18 9'2	19 0	18 10'3
20 0	20 9'5	20 0	21 6'8	20 0	20 7'1	20 0	22 11'0	20 0	19 6'6	20 0	19 10'2
21 0	21 11'2	21 0	22 7'7	21 0	21 7'5	21 0	23 1'2	21 0	20 5'7	21 0	20 10'1
22 0	22 1'2	22 0	23 8'6	22 0	22 7'8	22 0	24 0'7	22 0	21 4'8	22 0	21 10'0
23 0	23 2'6	23 0	24 9'6	23 0	23 8'2	23 0	25 2'5	23 0	22 3'9	23 0	22 10'0
24 0	24 4'3	24 0	25 10'5	24 0	24 8'6	24 0	26 4'2	24 0	23 3'1	24 0	23 10'9

The Belgian Measure is similar to the French. Large Bremen and Russian Ships are usually marked in English feet; Dutch, Antwerp, and German with Rhineland Measure; Finland with Swedish; and Austrian with Italian Measure. Greek and Italian Lineal Measure are similar to the French.

COMPARATIVE TABLE OF CLASSIFICATION OF
SHIPS.

Classification of Ships.	Lloyd's Register.	Bureau Veritas.	Austrian Lloyds.	Italian Register.
1st Class.				
1st Grade, 1st Class	A 1	$\frac{2}{3}$ I I	A II	100 I
2nd " " "	red A 1	$\frac{2}{3}$ I I	B II I	0,85 I
3rd " " "	Æ 1	$\frac{1}{2}$ I I	C II I	0,85 I
2nd Class.				
1st Grade, 2nd Class	E	$\frac{2}{3}$ 3 2	C II II	0,65
2nd " " "	I	$\frac{2}{3}$ 3 2	L II II	0,50

COMPARATIVE TABLE OF CLASSIFICATION OF SHIPS—*continued*.

Classification of Ships.	Norwegian Register.	American Register.	German Lloyds.	Netherlands Register.	Registre Internationale.
1st Class.					
1st Grade, 1st Class	A 1	{ A 1 A 1 ¹	A I	{ A 1 A 1 [*]	{ 1re C 1 [*] 1re C 2 [*]
2nd " "	A 2 [*]	A 1 ²	A II	{ A 2 A 2 [*]	2e C 1 [*]
3rd " "	{ A 2 B 1 B 2	{ A 1 ³ A 2	B	{ B 1 B 2	{ 2e C 2 [*] 3e C 1 [*]
2nd Class.					
1st Grade, 2nd Class	C 1	A 2	C L	C	3e C 2 ^o
2nd " "	C 2	A 2 ²	C K	D	

1 F, 2 F, 3 F, Lloyd's Register Class for foreign vessels *not* constructed according to Lloyd's rules, but surveyed by Lloyd's.

LLOYD'S REGISTER FOR IRON SHIPS AND STEAMERS.— \wedge and \wedge subject to survey every 4 years; \wedge every 3 years. The above class was formerly given, the following are now in use:—100 A, 95 A, 90 A, subject to survey every 4 years; 85 A, 80 A, 75 A, every 3 years.

LIVERPOOL IRON BOOK.—Iron ships and steamers are classed in red (for periods varying from 10 to 20 years) that have been inspected by the Liverpool Association Surveyor during construction. Vessels not surveyed as above are classed in black. Twenty years red, survey every 4 years, less than 20 years red, every 3 years; 20 years black, every 4 years, less than 20 years black, every 2 years.

LIGHTS.

Regulations as to Lights to be carried when ships are under way.

SAILING-SHIP.—Green light starboard side; red light port side.

STEAMSHIP.—Green light starboard side; red light port side; white light before foremast, not less than twenty feet, nor less than breadth of ship above hull.

SHIP BEING OVERTAKEN BY ANOTHER SHIP.—White light or flare up at stern.

STEAMER TOWING ANOTHER SHIP.—Green light starboard side; red light port side; two white lights vertically before foremast.

SAILING-SHIP BEING TOWED.—The same as another sailing-ship.

SHIP LAYING OR PICKING UP A TELEGRAPH CABLE.—Three vertical lights before foremast six feet apart, the highest and lowest red, the middle white.

SHIP NOT UNDER COMMAND.—Three vertical red lights before foremast, three feet apart.

PILOT VESSEL ON PILOTAGE DUTIES.—White light at mast-head, and at intervals, not exceeding 15 minutes, a flare up light.

PILOTAGE VESSEL WHEN NOT ON PILOTAGE DUTIES.—The same lights as other ships.

OPEN FISHING AND OTHER OPEN BOATS.—In lieu of side-lights, a lantern, showing green on one side and red on the other, to be exhibited in sufficient time to prevent a collision. They may also use a flare up in addition.

TIME AND KNOT TABLE.

The figure in this table which corresponds to the time in which a vessel passes over the measured knot is her rate of speed per hour in knots.

Secs.	2 min.	3 min.	4 min.	5 min.	6 min.	7 m.	8 m.	9 m.	10 m.	11 m.	12 m.	13 m.	14 m.
0	30'000	20'000	15'000	12'000	10'000	8'571	7'500	6'667	6'000	5'455	5'000	4'615	4'286
1	29'752	19'890	14'938	11'960	9'972	8'551	7'484	6'654	5'990	5'446	4'993	4'609	4'281
2	29'508	19'760	14'876	11'921	9'945	8'531	7'469	6'642	5'980	5'438	4'986	4'604	4'275
3	29'268	19'672	14'815	11'881	9'917	8'511	7'453	6'630	5'970	5'430	4'979	4'598	4'270
4	29'032	19'565	14'754	11'842	9'890	8'491	7'438	6'618	5'960	5'422	4'972	4'592	4'265
5	28'800	19'459	14'694	11'803	9'863	8'471	7'423	6'606	5'950	5'414	4'965	4'586	4'260
6	28'571	19'355	14'634	11'765	9'836	8'451	7'407	6'593	5'941	5'405	4'959	4'580	4'255
7	28'346	19'251	14'575	11'726	9'809	8'431	7'392	6'581	5'931	5'397	4'952	4'574	4'250
8	28'125	19'149	14'516	11'688	9'783	8'411	7'377	6'569	5'921	5'389	4'945	4'568	4'245
9	27'907	19'048	14'458	11'650	9'756	8'392	7'362	6'557	5'911	5'381	4'938	4'563	4'240
10	27'692	18'947	14'400	11'613	9'730	8'372	7'347	6'545	5'902	5'373	4'931	4'557	4'235
11	27'481	18'848	14'343	11'576	9'704	8'353	7'332	6'534	5'892	5'365	4'925	4'551	4'230
12	27'273	18'750	14'286	11'538	9'677	8'333	7'317	6'522	5'882	5'357	4'918	4'545	4'225
13	27'068	18'653	14'229	11'502	9'651	8'314	7'302	6'510	5'873	5'349	4'911	4'540	4'220
14	26'866	18'557	14'173	11'465	9'626	8'295	7'287	6'498	5'863	5'341	4'905	4'534	4'215
15	26'667	18'461	14'118	11'429	9'600	8'276	7'273	6'486	5'854	5'333	4'898	4'528	4'210
16	26'471	18'367	14'062	11'392	9'574	8'257	7'258	6'475	5'844	5'325	4'891	4'523	4'206
17	26'277	18'274	14'008	11'356	9'549	8'238	7'243	6'463	5'835	5'318	4'885	4'517	4'201
18	26'087	18'182	13'953	11'321	9'524	8'219	7'229	6'452	5'825	5'310	4'878	4'511	4'196
19	25'899	18'090	13'900	11'285	9'499	8'200	7'214	6'440	5'816	5'302	4'871	4'506	4'191
20	25'714	18'000	13'846	11'250	9'474	8'182	7'200	6'429	5'806	5'294	4'865	4'500	4'186
21	25'532	17'910	13'793	11'215	9'449	8'163	7'186	6'417	5'797	5'286	4'858	4'494	4'181
22	25'352	17'822	13'740	11'180	9'424	8'145	7'171	6'406	5'788	5'271	4'852	4'489	4'176
23	25'175	17'734	13'688	11'146	9'399	8'126	7'157	6'394	5'778	5'271	4'845	4'483	4'171
24	25'000	17'647	13'636	11'111	9'375	8'108	7'143	6'383	5'769	5'263	4'839	4'478	4'166
25	24'828	17'561	13'585	11'077	9'351	8'090	7'129	6'372	5'760	5'255	4'832	4'472	4'161
26	24'658	17'476	13'534	11'043	9'326	8'072	7'115	6'360	5'751	5'248	4'826	4'466	4'156
27	24'490	17'391	13'483	11'009	9'302	8'054	7'101	6'349	5'742	5'240	4'819	4'461	4'151
28	24'324	17'308	13'433	10'976	9'278	8'036	7'087	6'338	5'732	5'233	4'813	4'455	4'146
29	24'161	17'225	13'383	10'942	9'254	8'018	7'073	6'327	5'723	5'225	4'806	4'450	4'141
30	24'000	17'143	13'333	10'909	9'231	8'000	7'059	6'316	5'714	5'217	4'800	4'444	4'136
31	23'841	17'063	13'284	10'876	9'207	7'982	7'045	6'305	5'705	5'210	4'794	4'439	4'131
32	23'684	16'981	13'235	10'843	9'184	7'965	7'031	6'294	5'696	5'202	4'787	4'433	4'126
33	23'529	16'901	13'187	10'811	9'160	7'947	7'018	6'283	5'687	5'195	4'781	4'428	4'121
34	23'377	16'822	13'139	10'778	9'137	7'930	7'004	6'272	5'678	5'187	4'774	4'423	4'116
35	23'226	16'744	13'091	10'746	9'114	7'912	6'990	6'261	5'669	5'180	4'768	4'418	4'111
36	23'077	16'667	13'043	10'714	9'091	7'895	6'977	6'250	5'660	5'172	4'762	4'413	4'106
37	22'930	16'590	12'996	10'682	9'068	7'877	6'963	6'239	5'651	5'165	4'756	4'408	4'101
38	22'785	16'514	12'950	10'651	9'045	7'860	6'950	6'228	5'643	5'158	4'749	4'403	4'096
39	22'642	16'438	12'903	10'619	9'023	7'843	6'936	6'218	5'634	5'150	4'743	4'398	4'091
40	22'500	16'364	12'857	10'588	9'000	7'826	6'923	6'207	5'625	5'143	4'737	4'393	4'086
41	22'360	16'290	12'811	10'557	8'978	7'809	6'910	6'196	5'616	5'136	4'732	4'388	4'081
42	22'222	16'216	12'766	10'526	8'955	7'792	6'897	6'186	5'607	5'128	4'727	4'383	4'076
43	22'086	16'143	12'721	10'496	8'933	7'775	6'883	6'175	5'599	5'121	4'721	4'378	4'071
44	21'951	16'071	12'676	10'465	8'911	7'759	6'870	6'164	5'590	5'114	4'717	4'373	4'066
45	21'818	16'000	12'632	10'435	8'889	7'742	6'857	6'154	5'581	5'106	4'712	4'368	4'061
46	21'687	15'929	12'587	10'405	8'867	7'725	6'844	6'143	5'573	5'099	4'707	4'363	4'056
47	21'557	15'859	12'544	10'375	8'845	7'709	6'831	6'133	5'564	5'092	4'702	4'358	4'051
48	21'429	15'789	12'500	10'345	8'824	7'692	6'818	6'122	5'556	5'085	4'697	4'353	4'046
49	21'302	15'721	12'457	10'315	8'802	7'676	6'805	6'112	5'547	5'078	4'692	4'348	4'041
50	21'176	15'652	12'414	10'286	8'780	7'660	6'792	6'102	5'538	5'070	4'687	4'343	4'036
51	21'053	15'584	12'371	10'256	8'759	7'643	6'780	6'091	5'530	5'063	4'682	4'338	4'031
52	20'930	15'517	12'329	10'227	8'738	7'627	6'767	6'081	5'531	5'056	4'677	4'333	4'026
53	20'809	15'451	12'287	10'198	8'717	7'611	6'754	6'071	5'533	5'049	4'672	4'328	4'021
54	20'690	15'385	12'245	10'169	8'696	7'595	6'742	6'061	5'505	5'042	4'667	4'323	4'016
55	20'571	15'319	12'203	10'141	8'675	7'579	6'730	6'050	5'496	5'035	4'662	4'318	4'011
56	20'455	15'254	12'162	10'112	8'654	7'563	6'716	6'040	5'488	5'028	4'657	4'313	4'006
57	20'339	15'190	12'121	10'084	8'633	7'547	6'704	6'030	5'479	5'021	4'652	4'308	4'001
58	20'225	15'126	12'081	10'056	8'612	7'531	6'691	6'020	5'471	5'014	4'647	4'303	3'996
59	20'112	15'063	12'040	10'028	8'592	7'516	6'679	6'010	5'463	5'007	4'642	4'298	3'991

SHIPS ENTERED AND CLEARED.

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[illegible]

SHIPS ENTERED AND CLEARED.—(Continued.)

Name of Port.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	£	£	£
Dublin	7,735	2,003,987	7,400	1,972,313	377	54,913	2,077,468	130,903	14,037		
Dumfries	508	27,607	482	26,687	24	2,859	2,700	..	..
Dundalk	732	117,368	710	116,855	24	3,218	9,755	..	..
Dundee	1,245	488,197	1,777	459,244	177	115,241	3,852,341	861,175	77,783		
Exeter	870	71,178	848	68,455	32	4,688	173,069	1,237	6,514		
Falmouth	1,797	209,938	1,760	212,468	114	13,586	123,449	36,499	3,177		
Faversham	9,996	439,997	9,085	437,651	243	21,998	21,862	12,913	..		
Fleetwood	1,520	453,552	1,519	452,025	126	14,825	953,389	22,099	..		
Folkstone	1,268	274,446	1,269	274,206	16	2,610	9,339,104	1,678,770	1,232,485		
Fowey	2,398	233,181	2,235	222,160	135	14,925	20,945	146,681	..		
Galway	241	33,165	196	30,564	19	792	138,581	713	..		
Glasgow	9,361	2,885,672	9,480	2,998,835	1,533	1,178,790	10,864,084	14,461,488	523,865		
Gloicester	4,323	478,926	4,254	471,276	188	9,060	2,152,043	80,088	132		
Goole	2,158	530,568	2,597	661,616	245	24,787	4,510,053	295,283	295,283		
Grangemouth	1,962	78,724	1,938	753,785	54	10,296	1,902,753	658,316	444		
Granton	473	188,601	438	173,555	4	2,148	41,772	82,777	9,450		
Greenock	6,630	1,379,610	6,903	1,526,104	885	223,367	3,179,328	170,585	49,162		
Grimby	1,647	956,390	1,590	684,451	88	69,701	5,277,088	6,886,390	126,051		
Hartlepool	3,158	924,254	3,171	932,896	201	246,050	1,715,821	883,715	15,121		
Harwich	3,170	686,775	2,952	670,924	128	14,564	13,769,661	3,140,473	1,084,883		
Hull	5,258	2,317,499	5,034	2,209,207	858	211,938	23,073,465	15,138,647	4,471,968		
Inverness	3,139	362,953	3,090	357,892	68	6,275	58,991	22,354	..		
Ipswich	3,847	275,688	3,380	274,484	135	8,569	263,455	53,597	400		
Isle of Man	3,871	719,045	3,908	722,103	127	13,366	33,887	..	..
Kirkcaldy	2,383	605,050	2,430	665,753	15	939	213,641	325,761	..		
Kirkwall	2,414	214,740	2,331	207,905	34	2,100	6,611	15,206	..		
Lancaster	752	95,153	742	93,015	54	9,343	38,000	2,327	..		
Leith	3,068	1,031,752	2,748	984,399	174	88,163	8,066,927	3,016,038	211,033		
Limerick	525	85,826	530	85,098	58	2,787	7,256	98,432	..		
Littlehampton	510	152,285	499	147,068	25	1,368	636,247	3,650	..		
Liverpool	17,676	8,104,144	17,111	8,032,959	2,305	1,846,664	97,235,393	97,187,033	14,043,693		
Llanelli	1,228	167,640	1,233	168,864	32	4,733	2,235,378	90,141	..		
London	55,081	13,114,421	23,930	7,497,885	2,534	1,243,258	138,183,465	30,211,258	37,372,768		
Londonderry	1,607	333,680	1,599	328,171	12	18,974	387,544	914	..		
Lowestoft	790	91,991	900	99,564	446	18,676	89,998	5,368	..		
Lynn	1,031	146,669	1,002	142,688	90	7,073	539,704	15,093	..		
Maryport	1,459	239,981	1,456	244,901	41	18,752	136,208	257,240	..		
Middlesbrough	3,445	1,340,940	3,019	1,350,979	99	35,806	773,485	2,675,795	5,244		
Milford	1,667	323,658	1,662	323,665	77	5,390	41,397	100	..		
Montrose	531	94,472	530	89,234	39	4,914	280,401	99,813	8,600		
Newcastle	See Tyne Ports.	..	..	..	..	..	..	..	..
Newhaven	1,595	375,921	1,570	370,279	27	4,955	9,667,773	1,851,040	829,713		
Newport (Mon.)	9,385	2,279,540	9,386	2,261,069	112	39,146	764,723	1,116,647	27,812		

BALANCE-SHEET OF GREAT BRITAIN'S TRADE WITH THE WORLD FOR 1888,
 Showing Number and Tonnage of Vessels which entered from and cleared to each Foreign Country and British Possession, with respectively the excess of entries from or clearances to each Foreign Port; also the Value of Imports from and Exports to each Foreign Country and British Possession, with respectively the excess of Imports from or Exports to each Foreign Country and British Possession.

No. 1.—FOREIGN COUNTRIES.

Foreign Country.	Number and Tonnage of Vessels Entered from and Cleared to				Value of Imports from and Exports to							
	Entered from		Cleared to		Balance of Tonnage.		Imports from		Exports to		Balance of Trade.	
	No.	Tons.	No.	Tons.	Excess of Clearances to over Entries from	Excess of Entries from over Clearances to	Value, £.	Tons.	Value, £.	Excess of Imports from over Exports to	Value, £.	Excess of Exports to over Imports from
Abyssinia .....	..	..	4	5,621	..	5,621	..	..	Value, £.	Value, £.	..	3,330
Africa (W. Coast, not particularly designated) .....	..	..	..	..	..	..	..	..	3,330	..	..	3,330
Africa (Eastern)	88	90,507	117	104,959	..	14,452	851,942	146,824	915,740	..	..	63,798
Arabia (Muscat) .....	..	..	11	14,053	..	14,053	69,088	10,314	80,818	..	..	21,044
Argentine Republic	343	298,377	1,012	694,902	..	396,595	2,658,659	132,811	7,829,519	..	..	2,087
Austrian Territories	63	68,111	72	59,361	8,750	..	2,133,657	468,295	939,953	735,409	..	5,170,860
Australian	4,545	2,330,823	3,472	1,367,230	963,593	..	15,635,228	6,175,832	6,769,533	2,666,803	..	..
Bolivia .....	..	..	..	..	..	..	142,548	4,339	101,016	115,855	..	..
Brazil	370	266,592	933	666,268	..	403,676	5,206,899	390,364	6,256,297	26,693	..	1,358,762
Central America	14	14,082	10	8,564	5,518	..	1,137,234	47,335	945,207	144,692	..	..
Chili (including Pacific Coast of Patagonia)	192	189,727	412	424,468	..	234,681	3,089,381	217,307	2,904,540	667,534	..	..
									2,421,847	..	..	..

BALANCE-SHEET OF GREAT BRITAIN'S TRADE.—(Continued.)

No.	Tons.	No.	Tons.	Tons.	Value, £.	Value, £.	Value, £.	Value, £.	Value, £.
China (excl. of Hong Kong and Macao) ..	104	163,365	63	88,989	74,376	..	..	18,370	..
Cochin China (Canton and Tonquin) ..	13	20,093	9	9,598	10,495	..	..	210,151	..
Denmark ..	1,351	400,459	3,868	1,200,263	..	805,813	19,232	21,300,999	..
Danish W. I. Islands ..	4	1,786	31	13,681	..	12,195	347,384	83,848	86,176
Ecuador ..	14,038	4,981,852	12,831	7,853	804,443	7,853	14,227	33,848	374,487
France ..	204	165,548	126	4,977,409	78,215	..	38,835,226	395,622	14,129,539
F. Possessions in Western Africa ..	..	..	..	87,334	..	..	23,810,598	259,246	234,237
Bourbon (Réunion) ..	..	..	42	16,432	..	16,432	99,673	114,316	114,316
F. Possessions in N. America ..	..	..	..	..	..	943	5,396	5,443	4,500
Do. in W. I. Islands ..	..	..	3	403	..	..	4,882	5,515	5,515
Do. in Guiana ..	6,514	3,274,124	7,401	144,035	..	42,935	181,902	221,372	221,372
Germany ..	123	94,771	151	31,376	..	..	633	5,515	5,515
Greece ..	33	10,900	17	16,115	..	..	39,662	221,372	5,238
Hayti & St. Domingo ..	5,993	3,328,365	4,261	2,027,972	1,300,391	147,252	11,584,756	57,317,788	592,197
Holland ..	125	130,759	119	156,201	..	49,253	76,196	1,024,544	240,969
Other Possessions in Indian Seas ..	1	293	13	15,111	..	5,215	80,448	310,659	..
Irish W. I. Islands ..	21	4,559	4	1,388	..	..	11,342	8,511,863	14,927,675
Dutch Guiana ..	4	1,025	15	3,400	..	26,070,872	6,415,812	1,663,846	11,143,197
Italy ..	429	341,816	2,107	2,226,899	..	2,894,902	26,996	1,576,850	1,291,056
Japanese Islands ..	4	1,766	6	5,406	..	..	13,667	258,382	258,382
Pacific ..	30	50,186	38	57,439	..	..	232,615	156,917	119,600
Persia ..	2	522	4	2,200	..	..	4,299	30,883	2,468
Portuguese ..	33	10,900	87	87,160	..	..	2,735	2,455,198	..
Russia ..	164	42,358	50	16,699	..	..	815,615	963,173	..
Mexico ..	3,739	1,136,011	3,317	1,052,122	..	..	5,762,941	..	14,078
Spain ..	..	..	..	83,369	..	..	94,141	97,195	3,061,411
Sweden ..	..	..	..	..	..	..	128,960	410,579	60,145
Switzerland ..	..	..	..	..	..	..	101,435	103,234	918,188
Taiwan ..	..	..	..	..	..	..	1,799	1,373,355	123,433
Thailand ..	..	..	..	..	..	..	485,167	527,969	102,559
Turkey ..	..	..	..	..	..	..	117,153	619,245	..
U.S. Possessions ..	..	..	..	..	..	..	1,379,859	1,330,927	..
U.S. Possessions in N. America	1,379,859	1,330,927	..
U.S. Possessions in W. I. Islands	194,432	200,361	102,559

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BALANCE-SHEET OF GREAT BRITAIN'S TRADE.—(Continued.)

	No.	Tons.	No.	Tons.	Tons.	Tons.	Value, £.	Value, £.	Value, £.	Value, £.	Value, £.	Value, £.
Peru	30	56,153	59	54,174	1,060,529	160,621	1,148,611	2,309,532	581,031	..	..	..
Portugal	347	170,141	730	393,356	3,087,843	475,837	2,208,801	2,624,638	402,605	..	..	..
Azores	15	7,036	22	12,305	71,403	5,199	65,997	73,332	..	1,989	..	..
Madeira	10	7,099	75	49,591	75,344	42,192	92,916	110,198	..	34,854	..	..
Possessions in W. Africa	12	17,061	146	145,545	94,504	4,169	273,379	277,548	..	183,044	..	..
Do, in E. Africa ..	10	25,249	6	4,082	39,120	17,659	92,564	100,223	..	61,103	..	..
Do, in India .....	..	..	4	5,152	39,120	5,152	64,377	64,900	..	989,594	..	..
Roumania	316	315,378	119	111,878	203,500	63,531	989,594	1,053,125	..	..	..	..
Russia, N. Athm. Ports ..	3,333	1,711,654	2,477	1,381,017	3,703,391	2,586,748	3,703,391	6,290,049	6,070,050	..	..	..
" Southern	918	1,035,472	219	244,550	790,922	280,973	1,106,774	1,387,747	12,567,367	..	..	..
Siam	31	30,863	2	1,053	20,810	2,717	52,753	55,480	239,632	..	..	..
Spain	3,738	2,419,265	2,162	1,273,772	1,135,493	640,056	3,582,288	4,162,344	6,887,756	..	..	..
Canary Islands	18	16,393	119	107,705	81,489	15,149	285,378	300,527	..	219,038	..	..
Fernando Po .....	..	..	3	1,273	3,883	2,186	5,694	7,820	..	3,937	..	..
Philippine and Ladrone Islands	54	81,204	15	30,787	1,689,153	31,842	1,189,785	1,221,627	467,586	..	..	..
W. I. Islands	40	34,198	..	..	373,028	867,814	1,567,384	2,455,198	..	2,132,170	..	..
Ports in N. Africa ..	..	..	..	..	34,193	30	4,206	4,236	..	4,236	..	..
Sweden	3,512	1,425,120	3,011	1,354,504	70,616	1,174,319	2,376,366	3,555,125	4,634,176	..	..	..
Tripoli	67	7,222	4	2,748	69,474	1,062	5,518	6,580	318,070	..	..	..
Tunis	27	19,375	12	5,626	14,149	324,950	884	55,605	80,906	..	..	..
Turkey, European	72	76,919	289	308,655	231,736	1,258,168	319,278	2,656,515	2,975,793	1,717,307	..	..
" Asiatic (including Cyprus) ..	163	154,289	115	123,019	30,370	141,501	2,417,147	2,558,648	424,059	..	..	..
Egypt	253	316,743	762	907,671	592,928	2,083,607	94,462	2,097,782	4,288,717	..	..	..
United States—	..	..	..	..	..	..	..	..	..	..	..	..
Atlantic Ports	2,433	4,085,682	1,392	2,944,571	1,041,111	75,330,410	12,256,812	49,153,580	35,176,830	..	..	..
Pacific Ports	216	332,850	146	216,920	115,930	4,432,608	57,341	1,000,292	3,337,4975	..	..	..
Port of Columbia	50	66,158	88	125,282	372,445	37,571	1,126,441	1,184,012	..	811,577	..	..
Venezuela	60	21,026	66	22,410	265,095	11,978	581,667	593,445	..	323,476	..	..
Uruguay	58	47,069	344	312,744	458,138	79,123	1,771,692	1,836,615	..	1,239,677	..	..
Whale Fisheries (Northern)	15	3,895	17	4,928	26,926	..	..	..	..	..	..	..
Totals—Foreign Countries	54,433	30,013,975	53,407	28,528,821	1,485,154	..	300,720,005	56,556,249	149,904,129	206,460,378	94,259,621	..

No. II.—BRITISH POSSESSIONS.

British Possessions.	Number and Tonnage of Vessels Entered from and Cleared to				Value of Imports from and Exports to				Balance of Trade.			
	Entered from		Cleared to		Balance of Tonnage.		Imports from		Exports to		Excess of Imports over Exports to	
	No.	Tons.	No.	Tons.	Excess of Entries from over Clearances to	Tons.	Value, £.	Value, £.	Produce of the United Kingdom.	Value, £.	Total Exports.	Value, £.
Aden .....	..	..	80	120,684	..	120,684	287,306	47,356	164,274	211,670	75,336	.. 852
Ascension .....	..	..	..	..	..	..	242	118	976	1,094	..	..
Africa .....	..	..	..	..	..	..	..	..	..	..	..	..
Gambia and Sierra Leone .....	..	..	8	3,806	..	3,806	129,030	29,635	285,333	314,968	..	122,938
Gold Coast, including Lagos .....	..	..	..	..	..	..	647,430	45,300	463,772	509,072	138,358	..
Cape of Good Hope	77	100,399	155	102,343	..	81,954	4,552,533	324,209	3,889,680	4,214,089	336,504	..
Natal	24	21,452	78	114,496	..	93,044	1,087,126	171,185	2,024,303	2,195,488	..	1,108,360
Australasia—	..	..	..	..	..	..	..	932	14,783	15,715	..	..
Fiji Islands	119	249,654	180	278,790	..	29,216	8,708,250	1,027,459	8,076,311	9,095,810	..	15,715
South Wales	114	159,356	94	142,701	..	..	5,920,774	378,377	2,992,076	3,370,403	1,550,371	387,560
New Zealand .....	..	..	..	..	26,655	..	..	..	..	..	..	..
New Australia, including N. Territory.	52	51,807	107	154,547	..	102,740	3,096,982	233,386	1,902,714	2,136,100	960,882	..
S. Australia	11	8,667	11	7,814	..	853	239,272	37,420	482,330	519,750	..	280,478
Tasmania	46	66,436	195	328,132	..	261,676	5,844,206	1,209,952	8,877,069	10,087,031	..	4,242,858
Victoria	27	37,665	84	102,730	..	65,105	1,598,026	272,401	2,745,264	3,017,665	..	1,319,659
Queensland	19	4,920	19	19,066	..	14,146	357,549	35,474	318,621	354,098	..	3,454
Western Australia	3	1,718	12	7,062	..	5,344	1,231	10,064	81,954	92,038	..	90,287
Western Samoa	40	25,724	70	41,106	..	15,472	1,128,404	115,743	680,179	795,922	332,482	..
British Honduras ..	24	9,539	4	2,890	6,649	..	220,641	18,663	101,845	126,508	109,133	..
British	M	N	O	P	Q	R	S	T	U	V	W	X

BALANCE SHEET OF GREAT BRITAIN'S TRADE.—(Continued.)

M	N	O	P	Q	R	S	T	U	V	W	X
No.	Tons.	No.	Tons.	Tons.	Tons.	Value, £.	Value, £.	Value, £.	Value, £.	Value, £.	Value, £.
British N. America—											
Canada	578	759,493	376	657,191	101,302	8,915,498	1,061,710	7,138,877	8,200,587	714,912	..
Newfoundland and Labrador	89	16,779	100	10,058	..	352,711	73,044	418,415	401,459	..	138,748
British West India	186	114,724	228	207,330	..	2,237,470	245,374	2,272,788	2,518,162	..	280,692
Channel Islands	2,147	351,680	1,532	240,935	101,945	927,866	302,653	579,701	800,354	117,912	..
Ceylon	13	17,894	178	337,499	..	2,532,999	38,302	703,440	741,742	1,791,257	..
Falkland Island	5	348	6	3,093	..	745	7,686	31,778	703,794	50,258	..
Gibraltar	59	46,919	399	282,381	..	37,875	31,413	670,195	703,408	..	725,533
Hongkong	3	949	1	45	904	..	37	166	203	..	203
India—	2	2,624	8	10,161	..	7,537	1,996,690	198,618	3,003,379	..	2,804,761
Bombay and Scinde	126	357,767	429	780,488	..	8,193,366	656,490	13,553,167	14,209,666	..	6,016,270
Madras	45	57,669	33	49,199	7,870	4,312,649	85,607	3,081,314	3,081,314	1,145,738	..
Bengal and Burmah	435	824,167	393	549,095	284,072	16,855,307	379,112	14,006,887	14,378,999	491,621	..
Malta and Gozo	5	2,284	303	317,896	..	149,119	100,759	889,761	2,071,687	..	784,202
Mauritius	24	21,452	31	29,398	..	275,546	34,144	253,098	288,072	..	15,546
St. Helena .....	..	..	4	945	..	2,209	712	12,663	19,825	..	17,856
Strait Settlements	37	59,226	176	279,743	..	5,351,322	153,584	2,887,301	2,742,178	2,608,537	..
Totals	4,358	3,423,329	5,266	5,755,291	..	86,915,738	7,486,380	83,938,478	91,424,858	..	4,509,120
British Possessions .....	..	..	..	..	..	..	..	..	..	..	..
Foreign Countries, Table 1.	54,433	39,013,975	46,418	25,925,745	4,086,213	300,720,005	56,256,249	149,904,129	206,460,378	94,259,627	..
Totals .....	..	..	..	..	..	..	..	..	..	..	..
Foreign Countries Foreign and British Possessions	59,573	33,952,741	52,295	31,664,440	2,288,302	387,635,743	64,049,620	233,842,607	297,882,236	89,750,507	..
COASTING TRADE, 1888.											
				Entered.		Cleared.					
Sailing Vessels.....	..	..	..	No.	Tons.	No.	Tons.	..	..	..	..
" " " "	..	..	..	162,898	11,376,941	136,919	9,948,700	..	..	..	..
Steam .....	..	..	..	154,988	36,196,044	145,801	31,995,689	..	..	..	..
Totals.....	..	..	..	317,886	47,572,985	282,720	41,944,389	..	..	..	..

OF PRINCIPAL EXPORTS OF BRITISH PRODUCE,
1888.

	£		£
... ..	1,638,770	Glass—Plate	260,867
orses	848,311	Flint... ..	283,674
Slops	4,658,589	Common Bottles	405,160
munition, and		Other Manufactures, un-	
ry Stores—		enumerated	159,634
small	234,091	Haberdashery and Millinery	2,322,357
f... ..	363,270	Hardware and Cutlery, un-	
r Kinds... ..	1,349,661	enumerated	3,168,403
cks, empty	798,744	Hats of all sorts	1,251,624
... ..	1,705,368	Implements and Tools of	
Bread	535,163	Industry	999,760
ed	1,245,959	Jute, Yarn	272,813
... ..	140,036	Jute Manufactures—	
ll sorts	198,298	Piece Goods	2,080,700
Manufactures of	1,143,271	Leather, Tanned, Unwrought	
rts, &c.—		Wrought, Boots and Shoes	1,353,880
arriages for Pas-		Other Articles, unenu-	1,802,726
s and parts		merated	372,309
f... ..	340,995	Saddlery and Harness	512,161
aggon, Trucks,		Linen, Yarn	887,383
d parts thereof.	1,161,330	Linen Manufactures—	
... ..	1,165,000	Piece Goods, White or	
... ..	50,762	Plain	3,748,507
roducts or Pre-		Checked, Printed or	
ons. (See also		Dyed	271,047
tuffs)	1,931,964	Sailcloth and Sails	180,286
s, &c.—		Thread for Sewing	357,540
... ..	10,603,617	Unenumerated	995,661
Cinders... ..	488,462	Lucifers and Vesta Matches	133,987
ufactured	253,220	Machinery—Steam Engines.	3,449,998
of Coal, &c.		Of other sorts	9,489,269
ling Naphtha-		Manure (including Sulphate	
ne, and Oil		of Ammonia Manures)	1,849,035
rof, Petroleum,		Meat—	
Twine... ..	913,440	Beef, Pork, Bacon & Hams	283,329
and Meal—	447,978	Medicines, Drugs, and Medi-	
... ..	28,256	cinal Preparations	932,154
ur	96,108	Metals.	
orts	252,515	Iron—Old, for re-manufac-	
ufactures—	11,657,489	ture	396,981
ls, Unbleached,		Pig and Puddled	2,206,373
... ..	20,578,707	Bar (except Railroad)	1,658,308
l, White	3,619,383	Railroad of all sorts	4,669,215
d, Dyed, or		Hoops, Sheets, and	
ed	18,380,961	Boiler Plates	4,046,218
eed materials		Tinned Plates	5,546,228
on predomi-		Wire	863,148
)... ..	3,507	Cast and Wrought and	
Patent Net	1,923,386	other Manufactured... ..	4,885,255
and Socks	441,974	Steel, Unwrought	1,572,754
Sewing	3,180,885	Manufactures	572,186
d Small Wares	2,200,248	Copper, Unwrought	1,956,248
... ..	468,767	Wrought or Manufac-	
China Ware of		tured, Mixed or Yellow	
ts	2,098,433	Metal	494,873
... ..		Of other Sorts	568,557
gs	1,105,350	Brass—Manufactures	370,759
orts	462,616	Lead, Pig, Pipe and Sheet	728,916
abinet and		Tin, Unwrought	701,776
tery Wares	745,808	Zinc or Spelter—Un-	
		wrought or Wrought	87,653

PRINCIPAL EXPORTS.—(Continued.)

	£		£
Oil, Seed	1,593,912	Soap	482,399
Oil and Floor Cloth... ..	770,538	Spirits—British and Irish ...	1,162,215
Painter's Colours and Materials	1,448,189	Stationery, other than Paper	908,993
Paper Hangings	162,418	Sugar, Refined	514,842
Of other Sorts	1,674,908	Telegraphic Wire and Apparatus... ..	521,055
Pickles, Vinegar, Sauces, Condiments, Confectionery... ..	1,368,984	Umbrellas and Parasols ...	665,003
Plate, Gold and Silver ...	95,071	Wool, Sheep and Lambs' ...	1,016,070
Plated and Gilted Wares ...	296,918	Woolen & Worsted Yarn ...	4,051,980
Provisions, unenumerated ...	737,438	Woolen Manufactures—Cloths, Coatings, Stuffs, &c.	8,300,341
Rags and other Materials for making Paper... ..	460,319	Worsted Coatings & Stuffs	7,711,861
Salt	485,915	Flannels	587,574
Silk, Thrown, Twist, and Yarn	388,828	Carpets and Druggets ...	1,227,523
Silk Manufactures—Broad Piece Goods ...	1,608,666	Blankets	506,251
Of other Sorts	1,055,578	Of other Sorts	1,059,122
Skins and Furs of all Sorts...	974,144	OTHER ARTICLES	12,749,540
		TOTAL	£233,842,607

PRINCIPAL IMPORTS OF FOREIGN AND COLONIAL PRODUCE, 1888.

	£		£
Alkali	50,687	Cordage and Twine	459,138
Animals, Living—		Cork, Unmanufactured ...	218,243
Oxen, Bulls, Cows & Calves	5,912,361	Manufactured	538,542
Sheep and Lambs... ..	1,740,549	Corn, Grain and Meal—	
Swine	747,784	Wheat	21,995,974
Horses	192,624	Other kinds of Corn and Grain	19,539,961
Bacon and Hams	8,343,387	Wheatmeal and Flour ...	9,530,746
Beads, of all Sorts	74,345	Other kinds of Meal and Flour	189,915
Beef, Salted and Fresh ...	2,268,940	Cotton, Raw	40,009,086
Bones, of all Kinds (except Whalefins)	388,994	Yarn	471,776
Books	243,260	Manufactures—	
Brimstone	173,425	Piece Goods	601,998
Bristles	383,733	Other kinds of	1,649,357
Butter	8,913,045	Drugs—Bark, Peruvian ...	551,568
Butterine (Margarine) ...	3,268,313	Opium	365,518
Buttons and Studs, not of Metal	368,530	Unenumerated	888,241
Candles, of all Sorts... ..	137,307	Dyeing or Tanning Stuffs—	
Caoutchouc	2,555,341	Bark... ..	134,976
Manufactures of	290,573	Cochineal, Granilla & Dust	50,272
Cheese... ..	4,546,408	Cutch and Gambier ...	705,779
Chemical Manufactures and Products	1,311,297	Dyes obtained from Coal Tar	568,962
Chicory, Raw or Kild-dried	57,753	Indigo	1,702,232
China or Porcelain, and Earthenware	599,570	Madder, Madder Root, Garancine & Munjeet	18,997
Clocks	469,450	Safflower	6,283
Cocoa	929,761	Shumach	135,410
Coffee	3,576,571	Valonia	455,044
Confectionery... ..	140,494	Substances and Extracts, unenumerated	799,822

PRINCIPAL IMPORTS.—(Continued.)

	£		£
Dye Woods—Logwood ...	366,131	Manures—Unenumerated ..	132,453
Unenumerated ...	90,030	Matches ...	419,293
Eggs ...	3,083,167	Meat, Unenumerated—	
Embroidery & Needlework	460,550	Salted or Fresh ...	121,074
Feathers, for Beds ...	105,526	Preserved, otherwise by	
Ornamental ...	816,861	Salting ..	1,376,879
Fish ...	2,324,365	Metals—	
Flax, Dressed & Undressed,		Copper Ore and Regulus..	4,275,790
and Tow ...	2,999,791	Unwrought, part wrought	
Flowers, Artificial ...	259,479	and Old Copper ...	3,610,870
Fruit—		Manufactures, unenum-	
Almonds ...	242,180	merated ...	71,627
Apples, Raw ...	1,030,160	Iron, Ore ...	2,469,889
Currants ...	1,341,606	In Bars ...	1,025,568
Figs ...	175,521	Steel, Unwrought ...	111,843
Oranges and Lemons ...	1,460,921	Iron and Steel, Manufac-	
Raisins ...	918,013	tures of, Unenumerated	2,312,592
Raw, unenumerated, ...	1,387,285	Lead, Pig and Sheet ...	1,849,423
Galls ...	105,188	Silver Ore ...	1,495,972
Glass, of all Kinds ...	1,906,770	Tin, in Blocks, Ingots,	
Guano ...	196,379	Bars, or Slabs ...	3,520,342
Gum—Arabic... ..	312,493	Zinc, Crude in Cakes ...	1,047,174
Kowrie ...	177,822	Manufactures ...	369,138
Lac, Seed, Shell, Stick,		Metal, not otherwise	
and Dye ...	271,406	enumerated, Wrought	278,637
Of other sorts ...	380,293	Milk, Condensed ...	734,676
Gutta Percha... ..	181,560	Musical Instruments ...	804,174
Hair—Cow, Ox, Bull, or Elk		Mutton, Fresh ...	1,939,475
Goats' Hair or Wool ...	140,027	Nuts and Kernels—	
Horse ...	935,924	For expressing Oil there-	
Manufactures of Hair, and		from ...	713,061
of Goats' Wool ...	114,457	Of other sorts (including	
Hats and Bonnets—		“Nuts, for Fruit”) ...	523,993
Of Felt ...	124,961	Oil—	
Of Straw ...	66,210	Train or Blubber & Sperm	323,680
Hemp, Dressed & Undressed,		Animal ...	225,835
and Tow ...	66,026	Cocoa Nut ...	245,867
Hides—Raw ...	2,790,622	Olive ...	672,614
Hops ...	3,003,933	Palm... ..	945,896
Horns and Hoofs ...	799,391	Seed ...	412,438
Isinglass ...	146,374	Turpentine ...	517,991
Ivory—		Chemical, Essential, and	
Teeth, Elephant's, Sea		Perfumed ...	194,700
Cow, and Sea Horse..	87,156	Oil Seed Cake ...	1,607,263
Jute ...	537,527	Onions, Raw ...	642,082
Yarn... ..	3,904,326	Painters' Colours & Pigments	
Lace ...	114,071	Paper and Pasteboard—	
Lard ...	814,576	Of all Kinds (except	
Leather ...	1,819,133	Hangings) ...	1,770,439
Leather Manufactures—		Paper Hangings... ..	40,696
Boots and Shoes ...	5,909,683	Paraffin ...	448,234
Gloves ...	389,826	Petroleum ...	2,565,598
Unenumerated ...	1,598,749	Pictures and Drawings by	
Linen—Yarn ...	286,672	Hand ...	330,815
Manufactures ...	714,668	Pitch and Tar—Pitch ...	18,752
Liquorice ...	429,749	Tar ...	69,059
Manganese, Ore of ...	97,227	Plumbago ...	101,391
Manures—		Pork, Salted and Fresh ...	920,125
Phosphate of Lime and		Potatoes ...	802,034
Rock ...	201,102	Poultry and Game ...	403,537
	544,919	Pyrites of Iron or Copper ...	1,179,255
		Quicksilver ...	616,499
		Rabbits ...	276,612

PRINCIPAL IMPORTS.—(Continued.)

	£		£
Rags, and other materials for making Paper—		Spirits—	
Linen and Cotton Rags ...	471,566	Sweetened and Perfumed, of all Kinds ...	204,732
Esparto, & other Materials	2,318,787	Stones, &c. ...	577,691
Rags, Woollen, applicable to other uses than Manure	658,229	Straw Plaiting for Hats or Bonnets ...	566,795
Rice ...	2,308,233	Sugar—Refined and Candy	6,027,612
Rosin ...	268,392	Unrefined ...	12,109,668
Sago ...	187,787	Molasses ...	109,375
Other Farinaceous Substances... ..	1,017,344	Glucose ...	324,292
Saltpetre ...	298,824	Tallow and Stearine ...	1,432,596
Cubic Nitre ...	984,894	Tea ...	10,196,392
Seeds—Clover and Grass ...	689,792	Tobacco—Unmanufactured	1,464,557
Cotton ...	1,657,432	Manufactured, Cigars and Snuff ...	1,312,831
Flax and Linseed ...	4,786,426	Toys ...	709,670
Rape ...	446,472	Vegetables, Raw, Unenumerated ...	621,775
Tares and Lentils ...	71,514	Watches ...	585,587
Unenumerated, for Expressing Oil therefrom	246,844	Wax ...	85,603
Of other Sorts ...	286,711	Whalebone (Whalefins) ...	148,117
Shells ...	303,371	Wine ...	5,385,932
Silk, Raw ...	1,883,272	Wood and Timber—	
Knubs or Husks of Silk, and Waste ...	987,710	Hewn ...	4,058,610
Thrown ...	462,804	Sawn or Split ...	9,667,410
Manufactures ...	10,466,537	Staves ...	589,677
Skins and Furs—		Furniture & Hardwoods—	
Skins—Sheep and Lamb, undressed ...	987,092	Mahogany ...	376,087
Goat, undressed ...	584,622	Unenumerated ...	483,622
Seal ...	578,655	House Frames, &c. ...	511,952
All other Sorts ...	91,929	Wool—Sheep and Lambs' ...	25,849,918
Furs, of all Sorts ...	751,279	Alpaca, Vicuna and Llama	180,213
Manufactures of ...	591,985	Goats' Wool or Hair. See Hair ...	
Spices—Cinnamon ...	42,708	Woolen, Yarn ...	2,102,223
Ginger ...	229,611	Manufactures ...	8,803,348
Pepper ...	917,800	Yeast ...	734,623
Unenumerated ...	467,816	ALL OTHER ARTICLES... ..	13,987,420
Spirits—Brandy ...	1,220,459	TOTAL... ..	£387,635,743
Geneva ...	50,148		
Rum... ..	339,123		
Unenumerated, not sweetened ...	152,445		

VALUE OF THE PRINCIPAL AND OTHER ARTICLES OF FOREIGN AND COLONIAL PRODUCE AND MANUFACTURES EXPORTED.

	£		£
Arms and Ammunition ..	73,097	Cocoa ..	257,386
Bacon and Hams ..	331,915	Coffee ..	3,059,041
Beads of all Sorts ..	45,029	Confectionery ..	15,360
Butter ...	326,523	Cordage and Twine ..	103,469
Margarine ..	49,839	Corn, Grain, and Meal—	
Candles of all Sorts ..	117,447	Wheat ..	156,370
Caoutchouc ..	1,335,828	Other kinds of Corn and Grain ..	73,590
Cheese ..	172,005	Wheatmeal and Flour ..	106,151
Chemical Manufactures and Products ..	303,125	Other kinds of Meal and Flour ..	11,471
		Cotton—Raw ..	5,538,699

PRINCIPAL EXPORTS.—(Continued.)

	£		£
Cotton—Yarn	7,331	Nuts and Kernels, for ex-	
Manufactures	522,972	pressing Oil therefrom	415,342
Drugs—Bark, Peruvian ..	343,913	Oil—Coco-nut	158,009
Opium	331,475	Olive	118,554
Unenumerated	366,566	Palm.. ..	662,297
Dyeing or Tanning Stuffs—		Paper, of all Kinds (except	
Cochineal	35,263	Hangings)	93,389
Cutch and Gambier ..	249,710	Quicksilver	367,572
Indigo	1,084,000	Rags and other Materials	
Unenumerated	142,960	for making Paper ..	411,645
Dye Woods—		Rice	1,264,010
Logwood & all other sorts	47,751	Seeds—Flax and Linseed ..	279,720
Farinaceous Substances (in-		Rape	56,796
cluding Sago)	176,592	Unenumerated for ex-	
Feathers, Ornamental ..	389,554	pressing Oil therefrom	148,355
Fish	494,962	Silk & Silk Manufactures—	
Flax, Dressed & Undressed,		Raw	106,016
and Tow	111,635	Knubs or Husks of Silk,	
Fruit—Almonds	119,964	and Waste	77,987
Currants	92,733	Thrown	36,309
Oranges and Lemons ..	167,675	Manufactures	727,673
Raisins	138,302	Skins, Furs, and Pelts—	
Raw, Unenumerated ..	98,608	Goat, undressed	519,769
Glass, of all Kinds	173,372	Sheep, undressed	71,125
Guano	44,150	All other Sorts	878,624
Gum—Arabic	192,293	Spices—Cinnamon	40,590
Kowrie	55,021	Pedper	590,516
Lac, Seed, Shell, Stick,		Unenumerated	262,039
and Dye	200,657	Spirits—Brandy	59,100
Of other Sorts	192,881	Rum.. ..	205,192
Hemp, Dressed & Undressed,		Other Sorts, not Sweet-	
and Tow	1,021,748	ened, including various	
Hides, Raw	1,444,374	Kinds mixed in Bond	69,828
Hops	20,479	Sugar—Refined & Candy ..	170,485
Ivory, Teeth, Elephants',		Unrefined	825,749
Sea Cow, Sea Horse,		Molasses	52,983
or Sea Mose	311,472	Tallow and Stearine	367,537
Jute	1,328,366	Tea	1,807,130
Lard	115,088	Tobacco, Unmanufactured ..	191,423
Leather	1,653,997	Manufactured, of all Kinds	234,358
Manufactures, Boots and		Wax	28,325
Shoes	62,067	Wine	600,431
Meat, Preserved, otherwise		Wood and Timber—Hewn ..	100,832
than by Salting	96,470	Sawn or Split, Planed or	
Metals—		Dressed	129,855
Copper, Unwrought, part		Furniture and Hardwood,	
Wrought, and Old		of all Sorts	95,936
Copper	2,574,023	Wool, Sheep and Lambs' ..	13,786,821
Iron Bars, Angle, Bolt,		Woollen Manufactures ..	646,583
and Rod	652,564	ALL OTHER ARTICLES ..	7,086,1316
Steel, Unwrought	68,708	TOTAL	£64,042,629
Iron and Steel, Wrought			
or Manufactured, Un-			
enumerated	586,419		
Lead, Pig or Sheet	150,578		
Tin, in Blocks, Ingots,			
Bars, or Slabs	2,013,508		
Milk, Condensed	240,129		
Musical Instruments ..	100,651		

TOTAL SHIPPING TRADE OF GREAT BRITAIN & IRELAND IN THE PAST THREE YEARS.

	Vessels Entered.		Vessels Cleared.		Total Number of Vessels Registered.		Total Number of Vessels Employed.		Total Number of Persons Employed.	
	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	British.	Foreigners.
1886	346,686	75,041,451	309,108	69,225,663	37,569	9,246,732	17,917	7,144,097	162,614	25,183
1887	357,405	77,664,486	319,024	71,978,474	36,372	9,135,512	17,723	7,123,754	160,912	24,046
1888	377,459	81,525,727	341,979	76,510,792	36,462	9,209,883	17,584	7,351,888	179,969	25,277

TOTAL NUMBER OF SHIPS BUILT IN THE UNITED KINGDOM DURING THE PAST THREE YEARS
(Exclusive of Vessels built for Foreigners.)

	Vessels.		Iron.		Steel.		Wood.		Total.	
	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
1886	Sailing	93	92,337	30	31,767	227	13,908	359	138,012	
	Steam	122	44,923	155	109,933	20	455	366	134,611	
	Total...	215	137,260	194	141,020	256	14,363	665	292,643	
1887	Sailing	44	46,557	34	25,235	179	9,357	257	81,119	
	Steam	76	18,910	227	205,997	18	610	321	225,427	
	Total...	120	65,467	261	231,142	197	9,967	578	306,546	
1888	Sailing	55	20,999	38	45,614	176	9,083	269	75,666	
	Steam	91	26,183	350	379,358	24	1,994	465	407,445	
	Total...	146	47,182	388	424,972	200	10,077	734	483,111	

VALUE OF TOTAL IMPORTS AND EXPORTS OF MERCHANDISE DURING FIVE YEARS.

	1884		1885		1886		1887		1888	
	£	...	£	...	£	...	£	...	£	...
IMPORTS	...	...	...	...	...	...	...	...	...	...
reduced	390,018,569	...	370,667,472	...	349,863,472	...	362,027,564	...	387,635,743	...
& Colonial Produce	213,967,583	...	213,046,500	...	212,432,734	...	221,474,186	...	233,842,607	...
...	62,942,341	...	56,359,194	...	56,234,263	...	50,348,975	...	64,042,629	...
...	295,967,583	...	271,403,694	...	268,667,017	...	280,763,161	...	297,885,236	...
and Exports	685,086,752	...	642,371,649	...	618,530,489	...	642,090,725	...	685,530,979	...

TABLES OF FREEBOARD.

INSTRUCTIONS TO BOARD OF TRADE SURVEYORS.

The Board of Trade have received the report of the Loadline Committee, and the tables and rules annexed thereto.

The Board of Trade accept the conclusions of that Committee as to loadlines as shown in the report and in the tables and rules, and have furnished their officers with copies. Copies can be obtained by the public at large from the agents for the sale of Stationery Office publications, and through any bookseller.

The Board of Trade do not propose that their officers shall detain as overloaded any cargo ship on which the loadline is marked so as to give the freeboard assigned to her by those rules and tables, and which is not loaded beyond the limits prescribed therein.

As proof that the loadline on a ship is marked in accordance with these rules and tables, the Board's staff at the outports will receive the certificate of Lloyd's Register Committee where a loadline has been assigned by that committee, or the certificate of the Board of Trade where a loadline has been assigned by the Board of Trade. In future, the Board of Trade do not intend to assign a loadline for any ship classed in Lloyd's Register Book. In the case of ships not classed, or classed elsewhere, the Board will continue for a time, as heretofore, to assign loadlines on the application of the owner in due course, and accompanied by full particulars of the ship.

The Board of Trade, in making this announcement, desire to point out, for the information of all persons having the command or management of ships, that those rules and tables give minimum freeboards applicable for ships of the highest class only, and that no ships other than ships of the highest class are to be loaded so deeply as those rules and tables admit.

Ships to which a freeboard has been assigned by the Committee of Lloyd's Register, or by the Board of Trade, will, like other ships, be liable to detention, if, having regard to the time of the year, and the voyage, they are loaded more deeply than the rules and tables admit, and ships to which freeboards are not assigned will receive the particular notice of the staff so far as is possible.

Whilst the Board of Trade staff will by this arrangement be greatly relieved of the responsibility for the depth of loading of ships generally, it will be the duty of the Board itself in each case submitted to the Wreck Courts to instruct their solicitor to raise the question of loading whenever it may appear that deep loading may have contributed to the loss of the ship, and it will also be the duty of the Board of Trade if in any such case it should hereafter appear that a ship was loaded more deeply than the tables allow, looking to the age, character, class, and employment of the ship, to make the owner and the person responsible for the loading of the ship a party to the case, and to ask for the opinion of the court on his conduct.

T. H. FARRER, Secretary.

THOMAS GRAY, Assistant Secretary.

Board of Trade, Marine Department, August, 1885.

LOADLINE TABLES.

REPORT OF THE LOADLINE COMMITTEE.

[EXTRACT.]

To His Grace the Duke of Richmond and Gordon, K.G., &c.,
President of the Board of Trade.

MY LORD DUKE. The questions put to us were—

"1. Whether it is now practicable to frame any general rules concerning freeboard which will prevent dangerous overloading without unduly interfering with trade.

"2. If so, whether any, and which of the existing tables, with any, and what alterations, or any other, and what tables should be adopted.

"3. How far any such tables can be adopted as fixed rules, and what amount of discretion must be left to the Officers who have to see that they are complied with."

As the result of our prolonged consultations and labours we have unanimously arrived at the following replies to the questions before recited, viz. :—

1. We are of opinion that it is now practicable to frame general rules concerning freeboard which will prevent dangerous overloading without unduly interfering with trade.

2. We have the pleasure to submit herewith tables which we consider should be adopted.

3. We are of opinion that these tables can be adopted, at least for all existing types of cargo vessels, and for some years to come, without the exercise of any other discretion on the part of the officers who have to see that they are complied with, than that which concerns the quality and condition of the ship. The freeboards assigned by the tables herewith are suitable for vessels of the highest class in Lloyd's Register or of strength equivalent thereto, and should be increased for ships of inferior strength.

To the responsible authorities a large discretion must be allowed, viz. : that of applying the tables themselves with reasonable modifications to any very exceptional vessels which may now exist or may hereafter be constructed.

For, careful as we have been to give full consideration to all actual types and sizes of vessels, we cannot but admit that undue interference with trade might occasionally arise were the tables to be applied henceforth to all ships, present and future, without any exception whatever. We are well aware that the discretion which we thus regard as necessary is such as should be exercised with very great skill, care, and judgment, but we see no reason why those charged with the responsible duty of preventing the overloading of merchant ships should not have at their command all needful assistance.

The tables submitted herewith are of the same general form as those hitherto adopted by Lloyd's Register Office, and, like them, involve the reservation above water of a regulated minimum percentage of the total buoyancy. At the same time these tables secure a sufficient height of deck above water to which the Board of Trade advisers have justly attached much importance. The views of the Board of Trade advisers concerning the value of castles, poops, and like deck erections, and the necessity for a liberal amount of freeboard in flush-decked vessels which

deprived of such erections, have likewise received our careful attention, and have had their due influence upon the tables submitted herewith. The same may be said with reference to the freeboards assigned to vessels of extreme proportions and to vessels of very fine forms. The Board of Trade distinction between winter and summer freeboard has likewise, after the fullest consideration, been adopted.

The tables as now submitted involve only such limited modifications of the freeboards assigned by the latest tables of Lloyd's Register Office as Mr. Benjamin Martell is able to freely accept and cordially concur with. The same may be said of the extension of the tabular forms by the addition thereto of corrections for changes of length and for voyages in summer and in the North Atlantic in winter.

In the tables submitted the definitions of length, breadth, depth, sheer, round of beam, and freeboard have undergone revision.

The changes introduced have been made for the purpose of simplifying the assignment and marking of freeboards, and although they modify in one or two points the directions of the fourth section of the Merchant Shipping Act of 1873, and may therefore render legislation necessary, the measure required would be of so brief, simple, and non-contentious, a character as to render its passage easy.

It will be observed by the tables that they refer exclusively to cargo-carrying vessels. E. J. Reed (Chairman), W. Denny, Robt. Duncan, James Dunn, Frans Elgar, Thomas Gray, William Gray, James Laing, B. Martell, Digby Murray, T. B. Royden, Thos. Sutherland, Reginald Bingham (Secretary).

Explanation of the following Tables of Freeboard for the various Types of Steam and Sailing Vessels.

In the following tables the word Freeboard denotes the height of the side of a ship above the waterline at the middle of her length, measured from the top of the deck at the side, or, in cases where a waterway is fitted, from the curved line of the top of the deck continued through to the side. The freeboards and the corresponding percentages of reserve buoyancy necessary for flush-deck steamers not having spar or awning decks, for awning deck steamers, and for flush-deck sailing vessels, are given in Tables A, C, and D for vessels of these classes and of various dimensions and proportions. The freeboards necessary for spar deck steamers are given in Tables B. The latter are determined by considerations of structural strength, and they denote the limitations to depth of loading which are thereby imposed upon first-class vessels of this type. The freeboards and percentages of reserve buoyancy thus obtained being in excess of what would otherwise be required, the amounts of such percentages are not given in tables B.

The exact freeboard required for a given ship belonging to any of the classes comprised in Tables A, C, and D, may be calculated by constructing a displacement scale to the height of the deck to which the freeboard is measured, so as to give the whole external volume up to the upper surface of that deck. The percentage of the total volume which is given in the tables as the reserve buoyancy for a vessel of given type and dimensions will be the amount of volume that must be left out of the water. If a water-line be drawn upon

the displacement scale aforesaid to cut off the given percentage of total volume, the height of side above this line will be the freeboard required.

In order to simplify and reduce the work that would be involved by the above mode of determining the water-line and the consequent freeboard, that correspond to a given percentage of reserve buoyancy, an approximate method is adopted in the following tables, which enables the freeboard of a vessel to be calculated with a sufficient degree of accuracy for all ordinary working purposes. The use of this method not only saves the time and labour that would be involved by making a complete displacement scale for the whole external volume of a ship, but, what is much more important, it makes the tables easily and directly applicable in cases where such a displacement scale for a vessel is not at hand, or where the data requisite for constructing one is not procurable.

In this approximate method the form of the ship is taken into account by means of proportionate quantities, which are termed coefficients of fineness, instead of by the exact volumes that a displacement scale would give. It is found that the whole internal volume of a ship as measured for register tonnage divided by the product of the length, breadth, and depth, measured as described in the following clauses 1, 2, and 3, gives a fractional quantity or coefficient which bears a nearly constant relation to the quantity that would be obtained by dividing the whole external volume below the upper surface of the deck by the product of the length, breadth and depth. This fractional quantity is called the "coefficient of fineness" for freeboard purposes; and it serves the same practical object, when combined with the dimensions of the ship in the manner explained in the tables, as the volume itself would do.

In applying such an approximate method as the above, it is necessary to connect the coefficients of fineness given in the Tables with a standard sheer and round of beam. The standard scales for sheer and round of beam that have been adopted for this purpose are given in clauses 16 and 17 hereafter. Descriptions are also there given of the corrections that should be made for deviations from these standard amounts.

The freeboards given in the tables are for flush-deck vessels in all cases. Such reductions in freeboard as may be allowed for deck erections of various kinds and sizes in steamers not having spar or awning decks, and in sailing vessels, are described in paragraphs 11, 12, 13, 14, and 15.

No reduction of freeboard should be allowed on account of deck erections in spar-deck and awning-deck steamers.

Tables A and D give the minimum freeboards for first-class iron and steel vessels, the strength of which is at least equal to the requirements of the 100A class in Lloyd's Register for three-deck and smaller vessels. The freeboard of all other iron and steel vessels, classed or unclassified, should be regulated by the same standard; the increase of freeboard required in each case being determined by the limit at which the stress per square inch upon the material of the hull amidships shall not exceed that of the standard class, of same proportions, form, and moulded depth, when loaded to freeboards required by Tables A and D. Tables B and C give the freeboards for vessels built in accordance with, or equal to the requirements of Lloyd's Register for the spar and awning deck class and are subject to the conditions just stated for any modification.

strength in excess or diminution of the requirements of their respective classes.

1. *Length.* The length of the vessel is measured on the loadline from the fore side of the stem to the aft side of the stern post in sailing vessels, and to the aft side of the after post in steamers.

2. *Breadth.* The breadth used in obtaining the coefficient of fineness is the extreme breadth measured to the outside of plank or plating as given in the Register Book, or on the certificate of the ship's registry.

3. *Depth of Hold.* The depth used in obtaining the coefficient of fineness is the depth of hold as given in the Register Book, or on the certificate of the ship's registry. This dimension is subject to modification in determining the coefficient of fineness as explained in clause 4.

4. *Coefficient of Fineness.* The coefficient of fineness in one, two, and three deck and spar-deck vessels, is found by dividing 100 times the gross registered tonnage of the vessel below the upper deck by the product of the length, breadth, and depth of hold. In awning-deck vessels the registered depth and tonnage are taken below the main deck.

(a) It is of importance in the application of the rules and tables of freeboard that the coefficient of fineness deduced from the under-deck tonnage, and the principal dimensions should be a correct index to the vessel's relative fulness of form, and that a change in any of those elements which affect the coefficient, determined in accordance with the rule set forth should be considered, and the necessary correction, having regard to the special circumstances of the case, introduced. Among the cases that have from time to time come under notice are the following:—

(b) *Vessel having a cellular bottom throughout, or floors of greater depth than those usually fitted.*—In such a case the coefficient as determined from the under deck tonnage is in most instances slightly greater than it would be if the vessel were framed on the ordinary transverse system with floors of the usual depth. No general rule can be given for guidance, but it is not difficult, if the depth and slope of the top of the cellular bottom or floor be compared on the midship section with the depth and slope of an ordinary floor, to determine very closely the amount of the correction necessary.

(c) *Vessels constructed with floors of the ordinary kind, but with a cellular bottom for a part of the length amidships under the engines and boilers.*—In such a case the registered under-deck tonnage is smaller than it would be if the vessel were framed with ordinary floors throughout, the difference being the tonnage of the space between the top of the cellular bottom in the part amidships, and the level of the ordinary floor. The depth of hold is also measured by the Customs officials to the top of the cellular bottom, and this depth is inserted in the register. Under such circumstances, in order to arrive at the coefficient of fineness the vessel would have, if built on the ordinary system throughout, and for which the tables are framed, the tonnage of the volume between the top of the cellular bottom and the level of the ordinary floor should be calculated and added to the registered under-deck tonnage. The tonnage so corrected, used in conjunction with the depth

of hold to the top of the ordinary floor, gives the coefficient to be used in the Tables.

(d) *Vessels constructed with a cellular bottom throughout the fore and after holds, but with floors of the ordinary kind fitted for a part of the length amidships under the engines and boilers.*—In such a case the tonnage of the space between the top of the ordinary floors in the part amidships, and the top of the cellular bottom, if made continuous, should be estimated, and deducted from the registered under-deck tonnage, and the remainder employed in conjunction with the depth of hold to the top of the cellular bottom in determining the coefficient of fineness.

(e) Other cases may in practice arise in which the registered under-deck tonnage, or the registered depth of hold, or both, require modification before being used in the determination of the coefficient of fineness, but little difficulty will be experienced in making the necessary correction, if it be remembered that the coefficient sought is the coefficient the vessel would have if framed on the ordinary transverse system.

5. *Moulded Depth.*—The moulded depth of an iron or steel vessel, as given in the tables, is the perpendicular depth taken from the top of the upper deck beam at side, at the middle of the length of the vessel, to the top of the keel and the bottom of the frame at the middle line, except in spar and awning deck vessels, in which the depth is measured from the top of the *main* deck beams. In wooden and composite vessels the moulded depth is taken to be the perpendicular depth from the top of the upper deck beam at the side of the vessel amidships to the lower edge of the rabbet of the keel.

(a) The form at the lower part of the midship transverse section of many wooden and composite vessels being of a hollow character, as in cases where thick garboard strakes are fitted, the moulded depth in such instances should be measured from the point where the line of the flat of the bottom continued cuts the keel.

6. *Freeboard.*—The moulded depth, taken as above described, is that used in the tables for ascertaining the amount of reserve buoyancy and corresponding freeboard in vessels having a wood deck, and the freeboard is measured from the top of the wood deck at side, at the middle of the length of the vessel.

(a) On the same principle, in *flush-deck* vessels, other than spar or awning decked, and in vessels fitted with short poop and forecastle, having an iron upper deck, not covered with wood, the usual thickness of a wood deck should be deducted from the moulded depth of the vessel measured as above, and the amount of reserve buoyancy and corresponding freeboard taken from the column in the tables corresponding with this diminished moulded depth: *Example.*—In a steamer fitted with an iron upper deck, not covered with wood, and having a moulded depth of 19ft 10in, 4 inches, or the usual thickness of a wood deck, must be deducted from this, leaving a depth of 19ft 6in. The freeboard of such a vessel with a coefficient of fineness of 0.76, taken from the column under 19ft 6in, is 3ft 8½in, which should be measured from the top of the iron upper deck.

(b) In spar-deck vessels having iron spar decks, and in

awning-deck vessels having iron main decks, the freeboard required by the tables should be measured as if those decks were wood covered. Also in vessels where 7-10ths, or more, of the main deck is covered by substantial erections, the freeboard found from the tables should be measured amidships from a wood deck, whether the deck be of wood or iron. In applying this principle to vessels having shorter lengths of substantial enclosed erections the reduction in freeboard in consideration of its being measured from the iron deck, is to be regulated in proportion to the length of the deck covered by such erections. Thus, in a vessel having erections covering 6-10ths of the length, the reduction is 6-10ths of $3\frac{1}{2}$ inches, or 2 inches.

7. For vessels which trim very much by the stern, through the engines being fitted aft, the freeboard, as ascertained from the tables, if set off amidships would not cut off the amount of surplus buoyancy deemed necessary, and in such cases the suitable freeboard amidships could only be determined after full information is obtained regarding the vessel's trim.

8. The following example will illustrate the *general* application of the tables:—

In a steamer of the following dimensions, viz., length 204ft; breadth extreme, 29ft; depth of hold 16'0ft; registered tonnage under deck, 682 tons; and *moulded* depth, 17'0ft; the under deck capacity in cubic feet is 68,200; by dividing this by 94,656, that is, the product of the length, breadth, and depth of hold, the quotient is 0'72, or the coefficient of fineness.

If we now refer to Table A at 17'0ft moulded depth, and trace the line opposite the coefficient 0'72 to the column corresponding with this depth, it is found that the winter freeboard given for a *first-class steam vessel without erections*, whose length is twelve times the moulded depth, is 2ft 11in, corresponding with a reserve buoyancy of 25 per cent. of the total bulk.

9. *Vessels of Extreme Proportions*.—For vessels whose length is greater or less than that of the vessel of the same moulded depth for which the Tables are framed, the freeboard should be increased or diminished as specified in the footnote to the tables. Thus, if the vessel in the example, clause 8, were 224ft long, the winter freeboard required would be 2ft 11in plus 2in, or 3ft 1in. For steam vessels with top-gallant forecastles, having long poops or raised quarter decks, connected with bridge-houses, the whole extending over 6-10ths, or more, of the length of the vessel, the correction for length should be one-half that specified in Tables A.

10. *Breadth and Depth*.—In framing the tables it has been assumed that the relation between the breadth and depth is such as to ensure safety at sea with the freeboard assigned when the vessel is laden with homogeneous cargo; for vessels of less relative breadth, the freeboard should be so increased as to provide a sufficient range of stability, or other means adopted to secure the same.

11. *Erections on Deck*.—For steam vessels with top-gallant forecastles having long poops, or raised quarter decks connected with bridge-houses, covering in the engine and boiler openings, the latter being entered from the top, and having an efficiently constructed iron bulkhead at the fore end, a deduction may be made from the reserve buoyancy given in the tables, according to the following scale:—

(a) When the combined length of the poop, or raised quarter-deck, bridge-house, and top-gallant forecastle is—
9-10ths of the length of the vessel, deduct 85 per cent. of the reduction in the reserve buoyancy allowed for a complete awning deck, or 85-100ths, of the difference between freeboards in Tables A (after correction for sheer) and Tables C.

8-10ths of the length of the vessel, deduct 75 per cent. of the reduction in the reserve buoyancy allowed for a complete awning deck, or 75-100ths of the difference between freeboards in Tables A (after correction for sheer) and Tables C.

7-10ths of the length of the vessel, deduct 63 per cent. of the reduction in the reserve buoyancy allowed for a complete awning deck, or 63-100ths of the difference between freeboards in Tables A (after correction for sheer) and Tables C.

6-10ths of the length of the vessel, deduct 50 per cent. of the reduction in the reserve buoyancy allowed for a complete awning deck, or 50-100ths of the difference between freeboards in Tables A (After correction for sheer) and Tables C.

When the engine and boiler openings are protected only by a long raised quarter-deck, a less reduction in freeboard will be allowed.

(b) For intermediate lengths of erections the amount of the reduction in freeboard should be ascertained by interpolation.

(c) The above scale of allowance is prepared for vessels having long poops or raised quarter-decks 4ft high or above. For raised quarter-decks of less height, extending over four-tenths of the length, and forming an integral portion of the vessel, the amount of the allowance should be diminished, as shown in the following table:—

Height of raised Quarterdeck.	Moulded depth of Vessel in Feet.						
	ft. 10	ft. 12	ft. 14	ft. 16	ft. 18	ft. 20	ft. 22
ft. in.	ins.	ins.	ins.	ins.	ins.	ins.	ins.
3 6.....	—	—	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{3}{4}$
3 0.....	$\frac{1}{2}$	$\frac{3}{4}$	1	1	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$
2 6.....	1	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3
2 0.....	1 $\frac{1}{2}$	1 $\frac{1}{2}$	2 $\frac{1}{2}$	2 $\frac{1}{2}$	—	—	—
1 6.....	2	2 $\frac{1}{2}$	3	—	—	—	—

(a) For shorter lengths of raised quarter-deck a proportionate increase should be made.

(c) It is to be understood in the application of this scale of allowance for erections on deck to vessels with long poops or with raised quarter-decks, and bridge-houses combined, that the deduction is a maximum deduction, applicable only to vessels of these types in which the erections are of a most substantial character, the deck openings most effectually protected and the crew are either berthed in the bridge-house, or the arrangements to enable them to get backwards and forwards from their quarters are of a satisfactory character. For other vessels of the same class the amount of the deduction should be

fixed only after a careful survey. Also such vessels when employed in the Atlantic trade will require to have specially provided greater freeboard than that given in the tables.

(f) A sufficient number of clearing ports as large as practicable, and with shutters properly hung, should be formed in the bulwarks of these vessels, between the fore-castle and the bridge-house, for the purpose of speedily clearing this part of the deck of water.

12. When the erections on a vessel consist of a topgallant fore-castle, a short poop having an efficient bulkhead, and bridge-house disconnected, the latter in steamers covering the engine and boiler openings, and being efficiently enclosed with an iron bulkhead at each end, a deduction may be made from the reserve buoyancy given in the tables according to the following scale :—

(a) When the combined length of the erections is—

5-10ths of the length of the vessel, deduct 40 per cent. of the reduction in reserve buoyancy allowed for a complete awning deck or 2-5ths of the difference between the freeboard in Tables A (after correction for sheer and length) and Tables C (after correction for length).

4-10ths of the length of the vessel, deduct 33 per cent. of the reduction in reserve buoyancy allowed for a complete awning deck or 1-3rd of the difference between the freeboards in Tables A (after correction for sheer and length) and Tables C (after correction for length).

13. When the erections on a vessel consist of a topgallant fore-castle and bridge-house only, the latter in steamers covering the engine and boiler openings, and being efficiently enclosed with an iron bulkhead at each end, a deduction may be made from the reserve buoyancy given in the tables according to the following scale :—

(a) When the combined length of the erections is—

4-10ths of the length of the vessel, deduct 30 per cent. of the reduction in reserve buoyancy allowed for a complete awning deck or 3-10ths of the difference between the freeboards in Tables A (after correction for sheer and length) and Tables C (after correction for length).

3-10ths of the length of the vessel, deduct 25 per cent. of the reduction in reserve buoyancy allowed for a complete awning deck or 1-4th of the difference between the freeboards in Tables A (after correction for sheer and length) and Tables C (after correction for length).

14. When the erections on a vessel consist of a short poop and topgallant fore-castle only, the former enclosed at the fore-end with an efficient bulkhead, the deduction from the reserve buoyancy given in the tables should be according to the following scale :—

(a) When the combined length of the erections is—

3-8ths of the length of the vessel, deduct 8 per cent. of the reserve buoyancy or 10 per cent. of the freeboard required for the vessel flush decked (after correction for length).

3-8ths of the length of the vessel, deduct 6 per cent. of the reserve buoyancy or 8 per cent. of the freeboard required for the vessel flush decked (after correction for length);

and so on in proportion.

15. When a vessel is fitted with a topgallant fore-castle only, the reduction in reserve buoyancy should be one-half that prescribed

by the previous paragraph for the case where, in addition to the forecastle, the vessel is fitted with a poop of the same length.

16. *Sheer*.—The tables are framed for vessels having a mean sheer of deck *measured at the side*, as shown in the following Table.

	Length over which Sheer is measured.						
	100	150	200	250	300	350	400
	Mean Sheer in Inches over the Length specified.						
<i>Flush-deck Vessels</i> .—Sheer to be measured abreast stem and sternpost.	20	25	30	35	40	45	50
<i>Vessels having short poops and forecastles</i> .—Sheer to be measured at points distant $\frac{1}{4}$ th the length of the vessel from each end.	14	18	22	26	30	34	38
<i>Vessels having short forecastles only</i> .—Sheer to be measured abreast the sternpost and at a point distant $\frac{1}{4}$ th the length from the stem.	14 $\frac{1}{2}$	18 $\frac{1}{2}$	23	27	31	35 $\frac{1}{2}$	40

(a) In flush-deck vessels and in vessels to which clauses 11 and 12 apply, when the sheer of deck is greater or less than the above, and is of a *gradual character*, divide the difference in inches between it and the mean sheer provided for by 4, and the result in inches is the amount by which the freeboard amidships should be diminished or increased according as the sheer is greater or less.

(b) In vessels having short poops and forecastles, and in those having short forecastles only, the freeboard should be corrected in respect of the excess of or deficiency in reserve buoyancy due to variations in sheer from the standard amount over the length uncovered by substantial erections, as provided in the above table. One-fourth the difference between the mean sheer specified and that measured as described, is approximately the amount by which the freeboard should be modified in respect of sheer.

(c) The divisor 4 is to be used when the sheer is of a *gradual character*, and is not strictly applicable either to those cases in which the sheer is suddenly increased at the bow or stern, or to those in which it does not maintain its normal rate of increase to the ends of the vessel.

(d) In all cases the rise in sheer forward and aft is measured with reference to the deck at the middle of the length, and where the lowest point of the sheer is abaft the middle of the length, one-half of the difference between the sheer amidships and the lowest point, should be added to the freeboard specified in the Tables for flush-deck vessels, and for vessels having short poops and forecastles only.

(e) Where, as in some instances, vessels fitted with long poops or raised quarter-decks connected with bridge-houses have the deck line rising rapidly from amidships to the front of the bridge, and from that point onwards gradually approaching the normal sheer line, the freeboard may be slightly modified.

in consideration of the increase of height of deck in the "well."

(f) In flush-deck vessels and in vessels having short poops and forecastles the excess of sheer for which an allowance is made shall not exceed one-half the total standard mean sheer for the size of the ship.

(g) No decrease should be made in the freeboard of spar and awning deck vessels, in respect of excess of sheer.

17. *Round of beam.*—In calculating the reserve of buoyancy, an allowance has been made of one quarter of an inch for every foot of the length of the midship beam for the round up. When the round of the beam in flush-decked vessels is greater or less than that given by this rule, divide the difference in inches by 2, and diminish or increase the freeboard by this amount. For vessels with erections on deck the amount of the allowance should depend on the extent of the main deck uncovered. This rule for round of beam does not apply to spar or awning deck vessels.

18. As a general illustration of the way in which the Tables should be used in modifying the freeboard on account of erections on deck, extreme proportions and variations in sheer, the following may be taken as an example :

A vessel is 234ft long, 29ft broad, and has a moulded depth of 17'0ft, the coefficient of fineness being '72. Suppose the vessel to have a poop and bridge-house of the united length of 121ft, and a forecastle 20ft in length, and let the sheer forward, measured at the side, be 4ft 6in, and aft 2ft 1in.

	Ft.	in.
Freeboard by Tables A if of the normal length, without erections, and with the normal amount of sheer.....	2	11
The mean sheer by rule is 33'4in, or 6in less than that in the vessel, and the reduction in freeboard is 6in divided by 4	0	1½
Freeboard of vessel without erections and with 39½in mean sheer	2	9½
Freeboard by Tables C as awning-decked.....	1	4½
Difference.....	1	5

The combined length of the erections is $\frac{1}{2}\frac{1}{4}\frac{1}{4}$ ths or $\frac{9}{10}$ ths of the length of the vessel, and the allowance for erections under clause 11 will be therefore $\frac{9}{10}$ ths of 17in, or 8½in.

	Deduct in.
We have therefore :	
Amount deducted from freeboard for excess of sheer.....	1½
Amount deducted from the freeboard for erections	8½
Amount deducted if vessel be fitted with an uncovered iron main deck (clause 6) = 6-10 × ¾	2
	12
The length being 30ft in excess of that for which the tables are framed, the addition to the freeboard in respect of the same is one-half of 30-20ths of 2in, or	1½
	10½

That is 10½in to be deducted from 2ft 11in, leaving a winter freeboard of 2ft 0½in.

Corresponding summer freeboard 1ft 10½in.

[Paragraph 19 will be found on p. 140, following Tables.]

TABLE A.—CARGO-CARRYING STEAM VESSELS NOT HAVING SPAR OR AWNING DECKS.

The reduction in freeboard for summer voyages from European and Mediterranean Ports is to be made from April to September inclusive. In other parts of the world the reduced freeboard should be used during the corresponding or recognised summer months. The additional freeboard specified for the North Atlantic trades is to apply to vessels sailing to or from the Mediterranean or any British or European Port, and which may sail to or from, or call at Ports in British North America or Eastern Ports in the United States, north of and including Baltimore, from October to March, inclusive. Double the reduction to be allowed for voyages in the fine season in the Indian seas, between the limits of Suez and Singapore.

Table of Reserve Buoyancy and Freeboard for First-class Sea-going Iron and Steel Steam Vessels (in Salt Water).

Coefficient of Fineness.		Percentage Reserve Buoyancy—(Winter).																Corresponding Height of Freeboard Amidships (Winter), Measured from Top of Deck at Side.											
		22'0	22'2	22'4	22'6	22'8	23'0	23'2	23'4	23'6	23'8	24'0	24'2	24'5	24'7	25'0	25'2	25'5	25'7	26'0	26'2	26'5	26'8						
Moulded Depth and Length.																													
ft. in.		ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.			
10' 0	10' 6	11' 0	11' 6	12' 0	12' 6	13' 0	13' 6	14' 0	14' 6	15' 0	15' 6	16' 0	16' 6	17' 0	17' 6	18' 0	18' 6	19' 0	19' 6	20' 0	20' 6	21' 0	21' 6	22' 0	22' 6	23' 0			
11' 0	11' 6	12' 0	12' 6	13' 0	13' 6	14' 0	14' 6	15' 0	15' 6	16' 0	16' 6	17' 0	17' 6	18' 0	18' 6	19' 0	19' 6	20' 0	20' 6	21' 0	21' 6	22' 0	22' 6	23' 0	23' 6	24' 0			
12' 0	12' 6	13' 0	13' 6	14' 0	14' 6	15' 0	15' 6	16' 0	16' 6	17' 0	17' 6	18' 0	18' 6	19' 0	19' 6	20' 0	20' 6	21' 0	21' 6	22' 0	22' 6	23' 0	23' 6	24' 0	24' 6	25' 0			
13' 0	13' 6	14' 0	14' 6	15' 0	15' 6	16' 0	16' 6	17' 0	17' 6	18' 0	18' 6	19' 0	19' 6	20' 0	20' 6	21' 0	21' 6	22' 0	22' 6	23' 0	23' 6	24' 0	24' 6	25' 0	25' 6	26' 0			
14' 0	14' 6	15' 0	15' 6	16' 0	16' 6	17' 0	17' 6	18' 0	18' 6	19' 0	19' 6	20' 0	20' 6	21' 0	21' 6	22' 0	22' 6	23' 0	23' 6	24' 0	24' 6	25' 0	25' 6	26' 0	26' 6	27' 0			
15' 0	15' 6	16' 0	16' 6	17' 0	17' 6	18' 0	18' 6	19' 0	19' 6	20' 0	20' 6	21' 0	21' 6	22' 0	22' 6	23' 0	23' 6	24' 0	24' 6	25' 0	25' 6	26' 0	26' 6	27' 0	27' 6	28' 0			
16' 0	16' 6	17' 0	17' 6	18' 0	18' 6	19' 0	19' 6	20' 0	20' 6	21' 0	21' 6	22' 0	22' 6	23' 0	23' 6	24' 0	24' 6	25' 0	25' 6	26' 0	26' 6	27' 0	27' 6	28' 0	28' 6	29' 0			
17' 0	17' 6	18' 0	18' 6	19' 0	19' 6	20' 0	20' 6	21' 0	21' 6	22' 0	22' 6	23' 0	23' 6	24' 0	24' 6	25' 0	25' 6	26' 0	26' 6	27' 0	27' 6	28' 0	28' 6	29' 0	29' 6	30' 0			
18' 0	18' 6	19' 0	19' 6	20' 0	20' 6	21' 0	21' 6	22' 0	22' 6	23' 0	23' 6	24' 0	24' 6	25' 0	25' 6	26' 0	26' 6	27' 0	27' 6	28' 0	28' 6	29' 0	29' 6	30' 0	30' 6	31' 0			
19' 0	19' 6	20' 0	20' 6	21' 0	21' 6	22' 0	22' 6	23' 0	23' 6	24' 0	24' 6	25' 0	25' 6	26' 0	26' 6	27' 0	27' 6	28' 0	28' 6	29' 0	29' 6	30' 0	30' 6	31' 0	31' 6	32' 0			
20' 0	20' 6	21' 0	21' 6	22' 0	22' 6	23' 0	23' 6	24' 0	24' 6	25' 0	25' 6	26' 0	26' 6	27' 0	27' 6	28' 0	28' 6	29' 0	29' 6	30' 0	30' 6	31' 0	31' 6	32' 0	32' 6	33' 0			
21' 0	21' 6	22' 0	22' 6	23' 0	23' 6	24' 0	24' 6	25' 0	25' 6	26' 0	26' 6	27' 0	27' 6	28' 0	28' 6	29' 0	29' 6	30' 0	30' 6	31' 0	31' 6	32' 0	32' 6	33' 0	33' 6	34' 0			
22' 0	22' 6	23' 0	23' 6	24' 0	24' 6	25' 0	25' 6	26' 0	26' 6	27' 0	27' 6	28' 0	28' 6	29' 0	29' 6	30' 0	30' 6	31' 0	31' 6	32' 0	32' 6	33' 0	33' 6	34' 0	34' 6	35' 0			
23' 0	23' 6	24' 0	24' 6	25' 0	25' 6	26' 0	26' 6	27' 0	27' 6	28' 0	28' 6	29' 0	29' 6	30' 0	30' 6	31' 0	31' 6	32' 0	32' 6	33' 0	33' 6	34' 0	34' 6	35' 0	35' 6	36' 0			
24' 0	24' 6	25' 0	25' 6	26' 0	26' 6	27' 0	27' 6	28' 0	28' 6	29' 0	29' 6	30' 0	30' 6	31' 0	31' 6	32' 0	32' 6	33' 0	33' 6	34' 0	34' 6	35' 0	35' 6	36' 0	36' 6	37' 0			
25' 0	25' 6	26' 0	26' 6	27' 0	27' 6	28' 0	28' 6	29' 0	29' 6	30' 0	30' 6	31' 0	31' 6	32' 0	32' 6	33' 0	33' 6	34' 0	34' 6	35' 0	35' 6	36' 0	36' 6	37' 0	37' 6	38' 0			
26' 0	26' 6	27' 0	27' 6	28' 0	28' 6	29' 0	29' 6	30' 0	30' 6	31' 0	31' 6	32' 0	32' 6	33' 0	33' 6	34' 0	34' 6	35' 0	35' 6	36' 0	36' 6	37' 0	37' 6	38' 0	38' 6	39' 0			
27' 0	27' 6	28' 0	28' 6	29' 0	29' 6	30' 0	30' 6	31' 0	31' 6	32' 0	32' 6	33' 0	33' 6	34' 0	34' 6	35' 0	35' 6	36' 0	36' 6	37' 0	37' 6	38' 0	38' 6	39' 0	39' 6	40' 0			
28' 0	28' 6	29' 0	29' 6	30' 0	30' 6	31' 0	31' 6	32' 0	32' 6	33' 0	33' 6	34' 0	34' 6	35' 0	35' 6	36' 0	36' 6	37' 0	37' 6	38' 0	38' 6	39' 0	39' 6	40' 0	40' 6	41' 0			
29' 0	29' 6	30' 0	30' 6	31' 0	31' 6	32' 0	32' 6	33' 0	33' 6	34' 0	34' 6	35' 0	35' 6	36' 0	36' 6	37' 0	37' 6	38' 0	38' 6	39' 0	39' 6	40' 0	40' 6	41' 0	41' 6	42' 0			
30' 0	30' 6	31' 0	31' 6	32' 0	32' 6	33' 0	33' 6	34' 0	34' 6	35' 0	35' 6	36' 0	36' 6	37' 0	37' 6	38' 0	38' 6	39' 0	39' 6	40' 0	40' 6	41' 0	41' 6	42' 0	42' 6	43' 0			
31' 0	31' 6	32' 0	32' 6	33' 0	33' 6	34' 0	34' 6	35' 0	35' 6	36' 0	36' 6	37' 0	37' 6	38' 0	38' 6	39' 0	39' 6	40' 0	40' 6	41' 0	41' 6	42' 0	42' 6	43' 0	43' 6	44' 0			
32' 0	32' 6	33' 0	33' 6	34' 0	34' 6	35' 0	35' 6	36' 0	36' 6	37' 0	37' 6	38' 0	38' 6	39' 0	39' 6	40' 0	40' 6	41' 0	41' 6	42' 0	42' 6	43' 0	43' 6	44' 0	44' 6	45' 0			
33' 0	33' 6	34' 0	34' 6	35' 0	35' 6	36' 0	36' 6	37' 0	37' 6	38' 0	38' 6	39' 0	39' 6	40' 0	40' 6	41' 0	41' 6	42' 0	42' 6	43' 0	43' 6	44' 0	44' 6	45' 0	45' 6	46' 0			
34' 0	34' 6	35' 0	35' 6	36' 0	36' 6	37' 0	37' 6	38' 0	38' 6	39' 0	39' 6	40' 0	40' 6	41' 0	41' 6	42' 0	42' 6	43' 0	43' 6	44' 0	44' 6	45' 0	45' 6	46' 0	46' 6	47' 0			
35' 0	35' 6	36' 0	36' 6	37' 0	37' 6	38' 0	38' 6	39' 0	39' 6	40' 0	40' 6	41' 0	41' 6	42' 0	42' 6	43' 0	43' 6	44' 0	44' 6	45' 0	45' 6	46' 0	46' 6	47' 0	47' 6	48' 0			
36' 0	36' 6	37' 0	37' 6	38' 0	38' 6	39' 0	39' 6	40' 0	40' 6	41' 0	41' 6	42' 0	42' 6	43' 0	43' 6	44' 0	44' 6	45' 0	45' 6	46' 0	46' 6	47' 0	47' 6	48' 0	48' 6	49' 0			
37' 0	37' 6	38' 0	38' 6	39' 0	39' 6	40' 0	40' 6	41' 0	41' 6	42' 0	42' 6	43' 0	43' 6	44' 0	44' 6	45' 0	45' 6	46' 0	46' 6	47' 0	47' 6	48' 0	48' 6	49' 0	49' 6	50' 0			
38' 0	38' 6	39' 0	39' 6	40' 0	40' 6	41' 0	41' 6	42' 0	42' 6	43' 0	43' 6	44' 0	44' 6	45' 0	45' 6	46' 0	46' 6	47' 0	47' 6	48' 0	48' 6	49' 0	49' 6	50' 0	50' 6	51' 0			
39' 0	39' 6	40' 0	40' 6	41' 0	41' 6	42' 0	42' 6	43' 0	43' 6	44' 0	44' 6	45' 0	45' 6	46' 0	46' 6	47' 0	47' 6	48' 0	48' 6	49' 0	49' 6	50' 0	50' 6	51' 0	51' 6	52' 0			
40' 0	40' 6	41' 0	41' 6	42' 0	42' 6	43' 0	43' 6	44' 0	44' 6	45' 0	45' 6	46' 0	46' 6	47' 0	47' 6	48' 0	48' 6	49' 0	49' 6	50' 0	50' 6	51' 0	51' 6	52' 0	52' 6	53' 0			
41' 0	41' 6	42' 0	42' 6	43' 0	43' 6	44' 0	44' 6	45' 0	45' 6	46' 0	46' 6	47' 0	47' 6	48' 0	48' 6	49' 0	49' 6	50' 0	50' 6	51' 0	51' 6	52' 0	52' 6	53' 0	53' 6	54' 0			
42' 0	42' 6	43' 0	43' 6	44' 0	44' 6	45' 0	45' 6	46' 0	46' 6	47' 0	47' 6	48' 0	48' 6	49' 0	49' 6	50' 0	50' 6	51' 0	51' 6	52' 0	52' 6	53' 0	53' 6	54' 0	54' 6	55' 0			
43' 0	43' 6	44' 0	44' 6	45' 0	45' 6	46' 0	46' 6	47' 0	47' 6	48' 0	48' 6	49' 0	49' 6	50' 0	50' 6	51' 0	51' 6	52' 0	52' 6	53' 0	53' 6	54' 0	54' 6	55' 0	55' 6	56' 0			
44' 0	44' 6	45' 0	45' 6	46' 0	46' 6	47' 0	47' 6	48' 0	48' 6	49' 0	49' 6	50' 0	50' 6	51' 0	51' 6	52' 0	52' 6	53' 0	53' 6	54' 0	54' 6	55' 0	55' 6	56' 0	56' 6	57' 0			
45' 0	45' 6	46' 0	46' 6	47' 0	47' 6	48' 0	48' 6	49' 0	49' 6	50' 0	50' 6	51' 0	51' 6	52' 0	52' 6	53' 0	53' 6	54' 0	54' 6	55' 0	55' 6	56' 0	56' 6	57' 0	57' 6	58' 0			
46' 0	46' 6	47' 0	47' 6	48' 0	48' 6	49' 0	49' 6	50' 0	50' 6	51' 0	51' 6	52' 0	52' 6	53' 0	53' 6	54' 0	54' 6	55' 0	55' 6	56' 0	56' 6	57' 0	57' 6	58' 0	58' 6	59' 0			
47' 0	47' 6	48' 0	48' 6	49' 0	49' 6	50' 0	50' 6	51' 0	51' 6	52' 0	52' 6	53' 0	53' 6	54' 0	54' 6	55' 0	55' 6	56' 0	56' 6	57' 0	57' 6	58' 0	58' 6	59' 0	59' 6	60' 0			
48' 0	48' 6	49' 0	49' 6	50' 0	50' 6	51' 0	51' 6	52' 0	52' 6	53' 0	53' 6	54' 0	54' 6	55' 0	55' 6	56' 0	56' 6	57' 0	57' 6	58' 0	58' 6	59' 0	59' 6	60' 0	60' 6	61' 0			
49' 0	49' 6	50' 0	50' 6	51' 0	51' 6	52' 0	52' 6	53' 0	53' 6	54' 0	54' 6	55' 0	55' 6	56' 0	56' 6	57' 0	57' 6	58' 0	58' 6	59' 0	59' 6	60' 0	60' 6	61' 0	61' 6	62' 0			
50' 0	50' 6	51' 0	51' 6	52' 0																									

TABLE A—(Continued.)

Percentage Reserve Buoyancy—(Winter).																				
26°7	27°0	27°3	27°5	27°8	28°1	28°3	28°6	28°9	29°2	29°5	29°8	30°1	30°4	30°8	31°1	31°5	31°8	32°2	32°5	33°2
Corresponding Height of Freeboard Amidships (Winter), Measured from Top of Deck at Side.																				
Moulded Depth and Length.																				
Coefficient of Fineness.																				
ft. in. ft. in.																				

A. Correction in inches for a change of 10 ft. in the length.

B. Deduction in inches for summer voyages.

C. Addition in inches for winter, North Atlantic.

TABLE A.—(Continued)

Coefficient of Fineness.	Percentage Reserve Buoyancy—(Winter).						
	33'2	33'5	33'8	34'1	34'4	34'7	35'0
	Corresponding Height of Freeboard Amidships (Winter), Measured from Top of Deck at Side.						
	Moulded Depth and Length.						
	ft. in. 31 0	ft. in. 31 6	ft. in. 32 0	ft. in. 32 6	ft. in. 33 0	ft. in. 33 6	ft. in. 34 0
	ft. 372	ft. 378	ft. 384	ft. 390	ft. 396	ft. 402	ft. 408
	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.
'68	7 9	8 0	8 2½	8 5	8 7½	8 10½	9 1
'70	7 10½	8 1½	8 4	8 6½	8 9	9 0	9 2½
'72	7 11½	8 2½	8 5	8 7½	8 10	9 1	9 3½
'74	8 0	8 3½	8 6	8 9	8 11½	9 2½	9 5
'76	8 1½	8 4½	8 7	8 10	9 0½	9 3½	9 6
'78	8 3	8 6	8 8½	8 11½	9 2	9 5	9 7½
'80	8 4	8 7	8 9½	9 0½	9 3	9 6	9 8½
'82	8 5	8 8	8 10½	9 1½	9 4	9 7	9 10
A	1'6	1'6	1'6	1'6	1'6	1'7	1'7
B	5	5	5	5½	5½	5½	6
C	5½	5½	5½	6	6	6	6

A. Correction in inches for a change of 10 ft in the length..

B. Deduction in inches for summer voyages.

C. Addition in inches for winter, North Atlantic.

19. Vessels loaded in fresh water may have less freeboard than that given in the several tables according to the following scale :

Moulded Depth in Feet.	Reduction in Freeboard.	
	Vessels Without Erections on Deck. in.	Spar and Awning-Deck Vessels. in.
9 and under 11.....		
11 " 13.....	2½	—
13 " 16.....	3	3½
16 " 19.....	3½	4
19 " 22.....	4	4½
22 " 25.....	4½	5
25 " 28.....	5	5½
28 " 31.....	5½	6
31 " 34.....	6	6½

MEMO.—The weight of a cubic foot of salt water is taken the above table to be 65 lb., and that of fresh water 62½ lb. For weight of waters see p. 20.

TABLE B.—CARGO-CARRYING SPAR-DECK VESSELS.

These Tables apply to spar-deck vessels in which the height at side between the main and spar decks is 7 ft. from top of beam to top of beam; when this height is greater or less than 7 ft., the freeboard to the spar deck will require modification.

Table of Freeboard to Spar Deck for First-class Sea-going Spar-deck Steam Vessels (in Salt Water).

Coefficient of Fineness.	Height of Freeboard Amidships (Winter), Measured from Top of Spar Deck at Side.															
	Moulded Depth (to Main Deck) and Length.															
	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.
68	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0	29 0	30 0	31 0
70	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0	29 0	30 0	31 0
72	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0	29 0	30 0	31 0
74	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0	29 0	30 0	31 0
76	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0	29 0	30 0	31 0
78	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0	29 0	30 0	31 0
80	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0	29 0	30 0	31 0
82	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0	29 0	30 0	31 0
A	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0	29 0	30 0	31 0
B	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0	29 0	30 0	31 0
C	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0	29 0	30 0	31 0

A. Correction in inches for a change of 10 ft. in the length.

C. Addition in inches for winter North Atlantic.

B. Deduction in inches for summer voyages.

TABLE B.—(Continued.)

Coefficient of Fineness.	Height of Freeboard Amidships (Winter), Measured from Top of Spar Deck at Side.															
	Moulded Depth (to Main Deck) and Length															
	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.
	23 6	24 0	24 6	25 0	25 6	26 0	26 6	27 0	27 6	28 0	28 6	29 0	29 6	30 0	30 6	31 0
	ft. 366	ft. 372	ft. 378	ft. 384	ft. 390	ft. 396	ft. 402	ft. 408	ft. 414	ft. 420	ft. 426	ft. 432	ft. 438	ft. 444	ft. 450	ft. 456
'68	8 2	8 4½	8 7	8 9½	9 0	9 2½	9 5½	9 8	9 11	10 2	10 5	10 8½	10 11½	11 3	11 6	11 9
'70	8 3	8 5½	8 8	8 10½	9 1	9 3½	9 6½	9 9	9 12	10 3	10 6	10 9½	11 0½	11 4	11 7	11 10
'72	8 3½	8 6	8 8½	8 11	9 2	9 4½	9 7½	9 10	9 13	10 4	10 7	10 10½	11 1½	11 5	11 8	11 11
'74	8 4½	8 7	8 9½	9 0	9 3	9 5½	9 8½	9 11	9 14	10 5	10 8	10 11½	11 2½	11 6	11 9	11 12
'76	8 5	8 7½	8 10	9 0½	9 3½	9 6	9 9	9 12	9 15	10 6	10 9	11 0½	11 3½	11 7	11 10	11 13
'78	8 5½	8 8	8 11	9 1½	9 4½	9 7	9 10	9 13	9 16	10 7	10 10	11 1½	11 4½	11 8	11 11	11 14
'80	8 6	8 8½	8 11½	9 2	9 5	9 7½	9 10½	9 13½	9 16½	10 8	10 11	11 2	11 5½	11 9	11 12	11 15
'82	8 7	8 9½	9 0½	9 3	9 6	9 8½	9 11½	9 14½	9 17½	10 9	10 12	11 3	11 6½	11 10	11 13	11 16
A	1'2	1'3	1'3	1'3	1'3	1'3	1'4	1'4	1'4	1'4	1'5	1'5	1'5	1'5	1'5	1'5
B	5	5	5	5½	5½	5½	5½	5½	5½	6	6	6	6½	6½	6½	6½
C	5½	5½	5½	5½	5½	5½	6	6	6	6	6	6	6½	6½	6½	6½

A. Correction in inches for a change of 10 ft. in the length.
 B. Deduction in inches for summer voyages.
 C. Addition in inches for winter, North Atlantic.

TABLE C.—(Continued.)

Percentage Reserve Buoyancy to Main Deck—(Winter).																				
Corresponding Height of Freeboard Amidships (Winter), Measured from Top of Main Deck at side.																				
Moulded Depth (to Main Deck) and Length.																				
	19'6	19'9	20'3	20'6	21'0	21'4	21'9	22'3	22'8	23'3	23'8	24'3	24'7	25'2	25'6	26'1	26'5	27'0	27'5	28'0
ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.
24 6	25 0	25 6	26 0	26 6	27 0	27 6	28 0	28 6	29 0	29 6	30 0	30 6	31 0	31 6	32 0	32 6	33 0	33 6	34 0	34 6
294	300	306	312	318	324	330	336	342	348	354	360	366	372	378	384	390	396	402	408	414
ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.
2 10	3 0	3 2	3 4	3 6	3 9	3 11	4 2	4 4	4 7	4 9	5 0	5 2	5 3	5 5	5 8	6 1	6 4	6 7	7 0	7 3
2 10	3 0	3 2	3 4	3 7	3 9	4 0	4 2	4 5	4 7	4 10	5 1	5 3	5 4	5 6	5 9	6 2	6 5	6 8	7 1	7 4
2 11	3 1	3 3	3 5	3 7	3 10	4 0	4 2	4 5	4 8	4 10	5 1	5 3	5 5	5 7	6 0	6 3	6 6	6 9	7 2	7 5
2 11	3 1	3 3	3 5	3 8	3 10	4 1	4 3	4 6	4 9	4 11	5 2	5 4	5 6	5 9	6 2	6 5	6 8	7 1	7 4	7 7
3 0	3 2	3 4	3 6	3 8	3 11	4 2	4 4	4 7	4 10	5 1	5 3	5 5	5 8	6 0	6 3	6 6	6 9	7 2	7 5	7 8
3 0	3 2	3 4	3 7	3 9	4 0	4 2	4 5	4 8	4 11	5 2	5 4	5 6	5 9	6 2	6 5	6 8	7 1	7 4	7 7	8 0
3 1	3 3	3 5	3 7	3 10	4 0	4 3	4 5	4 8	4 11	5 2	5 4	5 7	5 10	6 0	6 3	6 6	6 9	7 2	7 5	7 8
3 1	3 3	3 5	3 8	3 10	4 1	4 3	4 6	4 9	5 2	5 4	5 7	5 10	6 1	6 4	6 7	7 0	7 3	7 6	7 9	8 2
A	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	8	8	8
B	4	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6
C	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6

A. Correction in inches for a change of 10 ft. in the length
 B. Deduction in inches for summer voyages
 C. Addition in inches for winter, North Atlantic.



FREEBOARD.

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TABLE D.—SAILING VESSELS.
Table of Reserve Buoyancy and Freeboard for First-class Sea-going Iron and Steel Sailing Vessels and Composite and Wood Vessels of the Highest Class (in Salt Water).

Coefficient of Fineness		Percentage Reserve Buoyancy (Iron Vessels).																		Corresponding Height of Freeboard Amidships, measured from Top of Deck at Side.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
		83.5	83.7	83.9	84.2	84.4	84.6	84.9	85.1	85.3	85.5	85.7	86.0	86.2	86.4	86.6	86.8	87.1	87.3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Wood.		Com- posite.		Iron.		Moulded Depth and Length.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
						ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.

TABLE B.—(Continued.)

Coefficient of Fineness.	Height of Freeboard Amidships (Winter), Measured from Top of Spar Deck at Side.															
	Moulded Depth (to Main Deck) and Length															
	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.
68	ft. 366	ft. 372	ft. 378	ft. 384	ft. 390	ft. 396	ft. 402	ft. 408	ft. 414	ft. 420	ft. 426	ft. 432	ft. 438	ft. 444	ft. 450	ft. 456
70	ft. in. 8 2	ft. in. 8 4½	ft. in. 8 7	ft. in. 8 9½	ft. in. 9 0	ft. in. 9 2½	ft. in. 9 5½	ft. in. 9 8	ft. in. 9 11	ft. in. 10 2	ft. in. 10 5	ft. in. 10 8½	ft. in. 10 11½	ft. in. 11 3	ft. in. 11 6	ft. in. 11 9
72	8 3	8 5½	8 8	8 10½	9 1	9 3½	9 6½	9 9	9 10	10 3	10 6	10 9½	11 0½	11 4	11 7	11 10
74	8 3½	8 6	8 8½	8 11	9 2	9 4½	9 7½	9 10	9 11	10 2	10 5	10 8½	11 1½	11 4	11 7	11 10
76	8 4½	8 7	8 9½	9 0	9 3	9 5½	9 8½	9 11	10 2	10 5	10 8½	11 1½	11 4½	11 7	11 10	11 13
78	8 5	8 7½	8 10	9 0½	9 3½	9 6	9 9	9 10	10 3	10 6	10 9½	11 2½	11 5½	11 8	11 11	11 14
80	8 5½	8 8	8 11	9 1½	9 4½	9 7	9 10	10 1	10 4	10 7	10 10	11 1½	11 4½	11 7	11 10	11 13
82	8 6	8 8½	8 11½	9 2	9 5	9 7½	9 10½	10 1½	10 4½	10 7½	10 10½	11 2	11 5½	11 8	11 11	11 14
84	8 7	8 9½	9 0½	9 3	9 6	9 8½	9 11½	10 2½	10 5½	10 8½	10 11½	11 3	11 6½	11 9	11 12	11 15
A	12	13	13	13	13	13	14	14	14	14	15	15	15	15	15	15
B	5	5	5	5½	5½	5½	5½	6	6	6	6	6½	6½	6½	6½	6½
C	5½	5½	5½	5½	5½	6	6	6	6	6	6	6½	6½	6½	6½	6½

section in inches for a change of 10 ft. in the length.

C. Addition in inches for winter, North Atlantic.

B. Deduction in inches for summer voyages.

TABLE C.—CARGO-CARRYING AWNING-DECK VESSELS.

Table of Reserve Buoyancy and Freeboard for First-class Sea-going Awning-deck Steam Vessels (in Salt Water)

Percentage Reserve Buoyancy to Main Deck—(Winter).																						
15'0	15'1	15'2	15'3	15'4	15'5	15'7	15'8	16'0	16'2	16'4	16'7	16'9	17'2	17'4	17'7	18'0	18'3	18'6	18'9	19'2		
Corresponding Height of Freeboard Amidships (Winter), Measured from Top of Main Deck at Side.																						
Moulded Depth (to Main Deck) and Length.																						
ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.		
14 0	14 6	15 0	15 6	16 0	16 6	17 0	17 6	18 0	18 6	19 0	19 6	20 0	20 6	21 0	21 6	22 0	22 6	23 0	23 6	24 0		
ft. 168	ft. 174	ft. 180	ft. 186	ft. 192	ft. 198	ft. 204	ft. 210	ft. 216	ft. 222	ft. 228	ft. 234	ft. 240	ft. 246	ft. 252	ft. 258	ft. 264	ft. 270	ft. 276	ft. 282	ft. 288		
ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.		
1 0	1 0	1 1	1 1	1 2	1 2	1 3	1 4	1 5	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 1	2 2	2 3	2 5	2 6		
1 0	1 0	1 1	1 1	1 2	1 2	1 3	1 4	1 5	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 1	2 2	2 3	2 5	2 6		
1 0	1 1	1 1	1 2	1 2	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 8		
1 0	1 1	1 1	1 2	1 2	1 3	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8		
1 1	1 1	1 2	1 2	1 3	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 8	2 9	3 0		
1 1	1 1	1 2	1 2	1 3	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 8	2 9	3 0		
1 1	1 2	1 2	1 3	1 3	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 8	2 9	3 0		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 10		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 10		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4	2 6	2 7	2 8	2 11		
1 1	1 2	1 3	1 3	1 4	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11	2 0	2 1	2 3	2 4						

A. Correction in inches for a change of 10 ft. in the length.

B. Deduction in inches for summer voyages.

C. Addition in inches for winter, North Atlantic.

SUPPLEMENTARY REPORT OF THE NON-OFFICIAL MEMBERS OF THE LOADLINE COMMITTEE.

[EXTRACT.]

If a compulsory loadline should be resolved upon, it will be necessary to apply the same limitations to vessels under foreign flags as to our own vessels when loading in this country or in the Colonies of Great Britain. We allude to this, which would seem indeed, to be an obvious necessity, because it has been brought before us in evidence that foreign vessels are frequently grave offenders in respect to over loading. It will be for your Grace's consideration whether it may be possible to establish an understanding with the leading maritime powers on this subject, but at all events it will, in our opinion, be impossible to enforce compulsory loadlines on the merchant ships of this country without at the same time requiring their application in British and colonial ports to ships under other flags competing with them.

It will be essential, if a compulsory loadline is to be enforced, to constitute a public authority competent to administer such a measure in a manner that will command the fullest confidence. It has been carefully pointed out in the report of the Committee that the tables which are now submitted must be applied with "very great skill, care, and judgment." It will therefore be necessary to secure some system of administration capable of giving due and well-considered effect to the principles embodied in these tables, not only by a just application of such principles to the many and various types of ships which at present exist, but also by their adaption to future changes and development which are certain to ensue from the progress of naval architecture.

In our judgment, it would only tend to failure to entrust the task which we describe to any purely official administration, however excellent. The duty of assigning compulsory loadlines, if it is to be undertaken, must, we consider, be entrusted to some body of a more representative character, which should consist not only of officials, but also of gentlemen who as shipowners, naval architects, seamen, and perhaps underwriters would bring to bear on this work great knowledge and experience, and who, by reason of that knowledge and experience, and also of their high standing in their several professions, would ensure such a fulfilment of the duty confided to them as would command the confidence of the country. We do not intend to imply that the authority or council which we suggest should be independent of the Minister responsible to Parliament. E. J. Reed, F. Elgar, B. Martell, W. Denny, W. Gray, T. B. Royden, R. Duncan, J. Laing, T. Sutherland, J. Dunn.

ANTIQUITY OF THE MARINER'S COMPASS.

* The earliest mention of the Compass in Europe is in the work of Guigit d' Povins, a French Poet, written in 1180, and quoted by Claude Fauchet in his "*Recueil de l'origine de la langue et poesie Francois.*"

"Par le virtue de la manete
Ou il fers volenter se joint,
Quant il nuis est tenebre et brune,
Con ne voit estoille ne lune,
Parce sont il mariner ceinte,
De la droit voit tenir."

Which would appear to dispose of the claim of the Venetians—that it was introduced from China by their countryman, Marco Polo, A.D. 1260, and the claim of the Neapolitans, who assert that it was discovered by John de Gloga, Amalfi, about the year 1302.

TABLES OF DISTANCES.

NORTH SEA, ENGLISH AND ST. GEORGE'S CHANNELS, ETC.

SUNDERLAND to	M.	SUNDERLAND to	M.	GLASGOW to	M.
Hartlepool	16	(South about)		Londonderry	143
Whitby	37	Swansea	690	Sligo	249
Flambro' Head	68	Cardiff	720	Limerick	440
Hull	126	Queenstown	720	Dublin	197
Yarmouth, Norfolk	180	Dublin	776	Milford	292
London	310	Limerick	887	Cork	347
Dungeness	300	LONDON to		Swansea	346
Beachy Head	332	Hull	233	Liverpool	222
St. Catherine (I.W.)	393	Middlesborough	295	Cardiff	375
Portland	440	Shields	315	Falmouth	435
Plymouth	513	Leith	418	Plymouth	468
Falmouth	545	Dundee	420	Southampton	582
Hamburg	413	Aberdeen	433	London	765
Nieu Diep	252	Sheerness	43	Leith, by Channel	1063
Amsterdam Canal	258	Dover	87		
Rotterdam Canal	266	Southampton	214	LEITH to	
Antwerp	327	Plymouth	317	Alloa	23
Ostende	279	Cardiff	526	Dundee	48
Havre	378	Liverpool	660	Aberdeen	185
Brest outside Ushant	627	Glasgow by Channel	766	Inverness	210
Bordeaux	896	Amsterdam Canal	188	Wick	185
Bilbao Bar	915	Havre	198	Berwick	52
Oporto	1120	LIVERPOOL to		Newcastle	115
Lisbon	1295	Holyhead	68	Hartlepool	128
Cadiz	1516	Douglas	70	Middlesborough	138
Huelva	1496	Dublin	120	Hull	235
Leith	114	Cork	254	Lynn	260
Aberdeen	137	Dundalk	135	Yarmouth	291
Lerwick	314	Belfast	140	Ipswich	348
North Cape	1230	Londonderry	217	Dover	386
Archangel	1877	Barrow	46	Southampton	506
Hammerfest	1205	Whitehaven	73	Falmouth	646
Drontheim	695	Stranraer	146	Hamburg	489
Christiansund	590	Ardrossan	170	Stettin	782
Bergen, N. Channel	411	Milford	188	Rotterdam Canal	370
		Swansea	237	Amsterdam Canal	353
SUNDERLAND to		Cardiff	266	Ostende	386
(North about)		Bristol	285	Antwerp	445
Greenock	639	Falmouth	322		
T'roon	608	Plymouth	352	HULL to	
Ardrossan	610	Southampton	470	Christiania	558
Belfast	602	GLASGOW to		Hamburg	387
Dublin	690	Ardrossan	45	Rotterdam Canal	195
Liverpool	720	Campbeltown	74	Amsterdam Canal	198
Cardiff	88	Stranraer	87	Ostende	225
Limerick	808	Belfast	116	Antwerp	263

SLEEVE, CATTEGAT, BELTS, BALTIC, GULFS OF FINLAND
AND BOTHNIA.

SUNDERLAND OF		SUNDERLAND OF		SUNDERLAND OF	
SHIELDS to	M.	SHIELDS to	M.	SHIELDS to	M.
Naze of Norway	330	Skaw	435	Copenhagen	536
Christiansand	365	Gothenburg	480	Malmo	592
Arendahl	400	Elsinore	563	Kiel	664
Christiania	520	Landecrona	576	Travemunde	689

SUNDERLAND or SHIELDS to	M.	LEITH to	M.	HULL to	M.
Wismar	690	Skaw	465	Uleaborg	1458
Rostock	684	Gothenburg	510	Haparanda	1450
Stralsund	656	Elsinore	593	LIVERPOOL to	
Stockholm	998	Landsrona	606	(North about)	
Hernosand	1190	Copenhagen	616	Naze of Norway	810
Karlsrona	738	Malmo	622	Christiansand	845
Norkoepping	958	Kiel	694	Arendahl	880
Bornholm N. end	683	Travemunde	719	Christiania	1000
Swinemunde	712	Wismar	720	Skaw	915
Dantzie	860	Rostock	714	Gothenburg	960
Pillau	862	Stralsund	686	Elsinore	1043
Memel	893	Stockholm	1028	Landsrona	1056
Libau	903	Hernosand	1220	Copenhagen	1066
Windau	923	Karlsrona	768	Malmo	1072
Riga	1053	Norkoepping	988	Kiel	1144
Dagerort	1003	Bornholm N. end	713	Travemunde	1169
Port Baltic	1076	Swinemunde	742	Wismar	1170
Revel	1104	Dantzie	890	Rostock	1164
Narva	1209	Pillau	892	Stralsund	1136
Helsingfors	1120	Memel	923	Stockholm	1478
Wyborg	1234	Libau	933	Hernosand	1670
Cronstadt	1254	Windau	963	Karlsrona	1218
Gefle	1113	Riga	1083	Norkoepping	1438
Vasa	1245	Dagerort	1033	Bornholm N. end	1163
Uleaborg	1423	Port Baltic	1106	Swinemunde	1192
Haparanda	1415	Revel	1134	Dantzie	1340
LONDON to		Narva	1230	Pillau	1342
Naze of Norway	486	Helsingfors	1150	Memel	1373
Christiansand	511	Wyborg	1264	Libau	1383
Arendahl	542	Cronstadt	1284	Windau	1413
Christiania	656	Gefle	1143	Riga	1533
Skaw	564	Vasa	1275	Dagerort	1483
Gothenburg	609	Uleaborg	1453	Port Baltic	1556
Elsinore	692	Haparanda	1445	Revel	1584
Landsrona	705	HULL to		Narva	1689
Copenhagen	715	Naze of Norway	365	Helsingfors	1600
Malmo	721	Christiansand	400	Wyborg	1714
Kiel	793	Arendahl	435	Cronstadt	1734
Travemunde	818	Christiania	555	Gefle	1593
Wismar	819	Skaw	470	Vasa	1725
Rostock	813	Gothenburg	515	Uleaborg	1903
Stralsund	886	Elsinore	598	Haparanda	1895
Stockholm	1127	Landsrona	611	GLASGOW to	
Hernosand	1319	Copenhagen	621	(North about)	
Karlsrona	867	Malmo	627	Naze of Norway	740
Norkoepping	1087	Kiel	699	Christiansand	775
Bornholm N. end	812	Travemunde	724	Arendahl	810
Swinemunde	841	Wismar	725	Christiania	930
Dantzie	989	Rostock	719	Skaw	845
Pillau	991	Stralsund	691	Gothenburg	890
Memel	1022	Stockholm	1033	Elsinore	973
Libau	1022	Hernosand	1225	Landsrona	980
Windau	1062	Karlsrona	773	Copenhagen	996
Riga	1182	Norkoepping	993	Malmo	1002
Dagerort	1132	Bornholm N. end	718	Kiel	1074
Port Baltic	1205	Swinemunde	747	Travemunde	1099
Revel	1233	Dantzie	895	Wismar	1100
Narva	1338	Pillau	897	Rostock	1094
Helsingfors	1249	Memel	928	Stralsund	1066
Wyborg	1303	Libau	938	Stockholm	1408
Cronstadt	1383	Windau	968	Hernosand	1600
Gefle	1242	Riga	1088	Karlsrona	1148
Vasa	1374	Dagerort	1038	Norkoepping	1368
Uleaborg	1550	Port Baltic	1111	Bornholm N. end	1093
Haparanda	1544	Revel	1130	Swinemunde	1122
LEITH to		Narva	1244	Dantzie	1270
Naze of Norway	360	Helsingfors	1155	Pillau	1272
Christiansand	395	Wyborg	1269	Memel	1303
Arendahl	430	Cronstadt	1289	Libau	1313
Christiania	550	Gefle	1148	Windau	1443
		Vasa	1280	Riga	1463

GLASGOW to	M.	CARDIFF to	M.	ANTWERP to	M.
(North about)		Hernosand	1730	Landscrona	706
Dagerort	1413	Karlsrona	1278	Copenhagen	716
Port Baltic	1486	Norkoeing	1498	Malmö	722
Revel	1514	Bornholm N. end	1223	Kiel	794
Narva	1619	Swinemunde	1252	Travemunde	819
Helsingfors	1530	Dantzic	1400	Wismar	820
Wyborg	1644	Pillau	1402	Rostock	814
Cronstadt	1664	Memel	1433	Stralsund	786
Gefle	1523	Libau	1443	Stockholm	1128
Vasa	1655	Windau	1473	Hernosand	1325
Uleaborg	1833	Riga	1593	Karlsrona	868
Haparanda	1825	Dagerort	1543	Norkoeing	1088
		Port Baltic	1616	Bornholm N. end	813
		Revel	1644	Swinemunde	842
CARDIFF to		Narva	1749	Dantzic	990
(South about)		Helsingfors	1660	Pillau	992
Naze of Norway	870	Wyborg	1774	Memel	1023
Christiansand	905	Cronstadt	1794	Libau	1033
Arendahl	940	Gefle	1653	Windau	1063
Christiania	1060	Vasa	1785	Riga	1183
Skaw	975	Uleaborg	1963	Dagerort	1133
Gothenberg	1020	Haparanda	1955	Port Baltic	1306
Elsinore	1103			Revel	1234
Landsrona	1116	ANTWERP to		Narva	1339
Copenhagen	1126	Naze of Norway	460	Helsingfors	1250
Malmö	1032	Christiansand	495	Wyborg	1364
Kiel	1204	Arendahl	530	Cronstadt	1384
Travemunde	1229	Christiania	650	Gefle	1243
Wismar	1230	Skaw	565	Vasa	1375
Rostock	1224	Gothenburg	610	Uleaborg	1553
Stralsund	1196	Elsinore	693	Haparanda	1545
Stockholm	1538				

MEDITERRANEAN, ADRIATIC, BLACK SEA, AND SEA OF AZOV.

SUNDERLAND to	M.	SUNDERLAND to	M.	LONDON to	M.
Alexandria	3382	Venice	3264	Tunis	2105
Algiers	2020	Zante	2914	Vigo	810
Alicante	1918	LONDON to		Valencia	1740
Almeria	1748	Alexandria	3102	Venice	2080
Athens	2990	Algiers	1740	Zante	2634
Barcelona	2153	Alicante	1638	LIVERPOOL to	
Batoum	3950	Almeria	1468	Alexandria	3027
Bona	2245	Athens	2710	Algiers	1665
Carthage	1845	Barcelona	1873	Alicante	1563
Constantinople	3370	Batoum	3670	Almeria	1393
Corfu	2865	Bona	1965	Athens	2635
Denia	1978	Carthage	1565	Barcelona	1798
Genoa	2499	Constantinople	3090	Batoum	3595
Gibraltar	1615	Corfu	2585	Bona	1890
Kertch	3790	Denia	1698	Carthage	1490
Leghorn	2450	Genoa	2219	Constantinople	3015
Lisbon	1338	Gibraltar	1325	Corfu	2510
Malaga	1050	Kertch	3510	Denia	1623
Malta	2595	Leghorn	2170	Genoa	2144
Marseilles	2330	Lisbon	1058	Gibraltar	1250
Messina	2720	Malaga	1370	Kertch	3435
Naples	2540	Malta	2315	Leghorn	2095
Odessa	3690	Marseilles	2050	Lisbon	973
Oran	1820	Messina	2440	Malaga	1295
Palermo	2562	Naples	2260	Malta	2240
Patras	2915	Odessa	3410	Marseilles	1975
Port Said	3645	Oran	1540	Messina	2365
Sfax	2620	Palermo	2282	Naples	2185
Smyrna	3225	Patras	2635	Odessa	3335
Sulina	3620	Port Said	3365	Oran	1495
Taganrog	3060	Sfax	2900	Palermo	2207
Tarragona	2120	Smyrna	2945	Patras	2560
Trieste	3264	Sulina	3340	Port Said	3290
Tunis	2385	Taganrog	3680	Sfax	2895
Vigo	1090	Tarragona	1840	Smyrna	2270
Valencia	2020	Trieste	2984	Sulina	3265

LIVERPOOL to	M.	GLASGOW to	M.	CARDIFF to	M.
Taganrog	3605	Tunis	2140	Venice	2800
Tarragona	1765	Vigo	845	Zante	2454
Trieste	2909	Valencia	1775	ANTWERP to	
Tunis	2030	Venice	3015	Alexandria	3152
Vigo	735	Zante	2669	Algiers	1790
Valencia	1665	CARDIFF to		Alicante	1688
Venice	2905	Alexandria	2922	Almeria	1518
Zante	2560	Algiers	1562	Athens	2760
GLASGOW to		Alicante	1458	Barcelona	1923
Alexandria	3137	Almeria	1288	Batoum	3720
Algiers	1775	Athens	2530	Bona	2015
Alicante	1673	Barcelona	1693	Carthage	1615
Almeria	1503	Batoum	3490	Constantinople	3140
Athens	2745	Bona	1785	Corfu	2635
Barcelona	1908	Carthage	1385	Denia	1748
Batoum	3705	Constantinople	2910	Genoa	2269
Bona	2000	Corfu	2405	Gibraltar	2375
Carthage	1600	Denia	1518	Kertch	3560
Constantinople	3125	Genoa	2039	Leghorn	2220
Corfu	2620	Gibraltar	1145	Lisbon	1108
Denia	1733	Kertch	3330	Malaga	1420
Genoa	2254	Leghorn	1990	Malta	2365
Gibraltar	1360	Lisbon	878	Marseilles	2100
Kertch	3545	Malaga	1190	Messina	2490
Leghorn	2205	Malta	2135	Naples	2310
Lisbon	1093	Marseilles	2080	Odessa	3460
Malaga	1405	Messina	2260	Oran	1590
Malta	2350	Naples	2080	Palermo	2332
Marseilles	2185	Odessa	3230	Patras	2685
Messina	2475	Oran	1360	Port Said	3415
Naples	2295	Palermo	2102	Sfax	2950
Odessa	3445	Patras	2455	Smyrna	2295
Oran	1575	Port Said	3182	Sulina	3390
Palermo	2317	Sfax	2720	Taganrog	3730
Patras	2670	Smyrna	2765	Tarragona	1890
Port Said	3400	Sulina	3160	Trieste	3934
Sfax	2935	Taganrog	3500	Tunis	2155
Smyrna	2980	Tarragona	1660	Vigo	860
Sulina	3375	Trieste	2804	Valencia	1700
Taganrog	3715	Tunis	1925	Venice	3030
Tarragona	1875	Vigo	630	Zante	2684
Trieste	3019	Valencia	1560		

RED SEA, INDIA, CHINA, JAPAN, ETC.

[By the Suez Canal.]

UNDERLAND to	M.	SUNDERLAND to	M.	LONDON to	M.
Acheen Head	7980	Suez	3660	Manilla	9650
Aden	4975	Zanzibar	6575	Mauritius	7005
Akyab	8230	Yokohama	11525	Nieu Chwang	11165
Amherst	8290	Naga-aki	11055	Penang	7930
Amoy	10300	Osaka	11365	Rangoon	8025
Anjer	8553	Hakodadi	11815	Shanghai	10540
Batavia	8615	LONDON to		Singapore	8345
Bombay	6610	Acheen Head	7700	Suez	3360
Bushire	6741	Aden	4695	Zanzibar	6295
Calcutta	8330	Akyab	7950	Yokohama	11245
Cochin	6815	Amherst	8005	Nagasaki	10775
Colombo	7075	Amoy	10015	Osaka	11085
Foochoofoo	10520	Anjer	8270	Hakodadi	11535
Galle	7095	Batavia	8330	LIVERPOOL to	
Hong Kong	10060	Bombay	6330	Acheen Head	7625
Kurrachee	6390	Bushire	6460	Aden	4620
Madras	7620	Calcutta	7950	Akyab	7875
Manilla	9930	Cochin	6535	Amherst	7930
Mauritius	7285	Colombo	6795	Amoy	9940
Nieu Chwang	11445	Foochoofoo	10240	Anjer	8195
Penang	8210	Galle	6815	Batavia	8255
Rangoon	8305	Hong Kong	9780	Bombay	6255
Shanghai	10820	Kurrachee	6110	Bushire	6385
Singapore	8625	Madras	7340	Calcutta	7815

TABLES OF DISTANCES.

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LIVERPOOL to	M.	GLASGOW to	M.	CARDIFF to	M.
Cochin	6460	Manilla	9585	Suez	3200
Colombo	6720	Mauritius	7040	Zanzibar	6615
Foochoofoo	10165	Nieu Chwang	11250	Yokohama	11065
Galle	6740	Penang	7965	Nagasaki	10595
Hong Kong	9705	Rangoon	8060	Osaka	10905
Kurrachee	6035	Shanghai	10575	Hakodadi	11355
Madras	7265	Singapore	8380	ANTWERP to	
Manilla	9575	Suez	3415	Acheen Head	7750
Mauritius	6930	Zanzibar	6330	Aden	4745
Nieu Chwang	11090	Yokohama	11280	Akyab	8000
Penang	7855	Nagasaki	10810	Amherst	8055
Rangoon	7955	Osaka	11120	Amoy	10065
Shanghai	10465	Hakodadi	11570	Anjer	8320
Singapore	8270	CARDIFF to		Batavia	8380
Suez	3305	Acheen Head	7520	Bombay	6280
Zanzibar	6220	Aden	4515	Bushire	6510
Yokohama	11170	Akyab	7770	Calcutta	8000
Nagasaki	10700	Amherst	7825	Cochin	6585
Osaka	11010	Amoy	9835	Colombo	6845
Hakodadi	11460	Anjer	8090	Foochoofoo	10020
GLASGOW to		Batavia	8150	Galle	6865
Acheen Head	7735	Bombay	6150	Hong Kong	9830
Aden	4730	Bushire	6280	Kurrachee	6160
Akyab	7985	Calcutta	7770	Madras	7390
Amherst	8040	Cochin	6355	Manilla	9700
Amoy	10050	Colombo	6615	Mauritius	7055
Anjer	8305	Foochoofoo	10060	Nieu Chwang	11215
Batavia	8365	Galle	6635	Penang	7980
Bombay	6365	Hong Kong	9600	Rangoon	8075
Bushire	6495	Kurrachee	5930	Shanghai	10590
Calcutta	7985	Madras	7160	Singapore	8395
Cochin	6570	Manilla	9470	Suez	3430
Colombo	6830	Mauritius	6825	Zanzibar	6345
Foochoofoo	10275	Nieu Chwang	10985	Yokohama	11205
Galle	6850	Penang	7750	Nagasaki	11225
Hong Kong	9815	Rangoon	7845	Osaka	11135
Kurrachee	6145	Shanghai	10360	Hakodadi	11585
Madras	7375	Singapore	8165		

ATLANTIC, WEST INDIES, BRAZILS, CAPE OF
GOOD HOPE, EAST AND WEST COAST SOUTH AMERICA,
AUSTRALIA, ETC.

SUNDERLAND to	M.	SUNDERLAND to	M.	LONDON to	M.
Acapulco	12350	Halifax, N.S.	2965	Algoa Bay	6340
Adelaide	9025	Havana	4470	Antigua	3830
Algoa Bay	6620	Hobart Town	11560	Arica	9735
Antigua	4110	Honolulu	13610	Ascension	3905
Arica	10015	Jamaica	4490	Auckland, N.Z.	12120
Ascension	4185	Melbourne	11530	Azores	1460
Auckland, N.Z.	12400	Monte Video	6450	Bahia	4505
Azores	1740	Natal	7000	Barbadoes	3805
Bahia	4785	New Orleans	4970	Belize	4570
Barbadoes	4085	New York	3525	Bermuda	3055
Belize	4850	Otago	12450	Bonny	4170
Bermuda	3335	Panama	11630	Boston, U.S.A.	3030
Bonny	4450	Pernambuco	4410	Buenos Ayres	6260
Boston, U.S.A.	3310	Quebec	3210	Caldera	9210
Buenos Ayres	6560	Rio Janeiro	5480	Callao	9970
Caldera	9490	Rio Grande	6050	Cape Coast Castle	3870
Callao	10250	San Francisco	13950	Cape of Good Hope	6065
Cape Coast Castle	4150	Sierra Leone	3280	Cape Horn	7400
Cape of Good Hope	6345	St. John's, N.F.	2485	Chagres	4990
Cape Horn	7680	St. Vincent (Atlan)	9805	Cobija	9490
Chagres	5270	Sydney	11120	Coquimbo	9040
Cobija	9770	Valparaiso	9050	Demerara	4930
Coquimbo	9320	Wellington, N.Z.	12150	Fiji Islands	11720
Demerara	4310	LONDON to		Guayaquil	10670
Fiji Islands	12000	Acapulco	12070	Halifax, N.S.	2685
Guayaquil	10950	Adelaide	2745	Havana	4470

LONDON to	M.	LIVERPOOL to	M.	CARDIFF to	M.
Hobart Town.....	11280	St. Vincent (Atlan.)	2450	Bonny.....	4040
Honolulu.....	13330	Sydney, N.S.W.	10765	Boston, U.S.A.....	2900
Jamaica.....	4210	Valparaiso.....	8795	Buenos Ayres.....	6100
Melbourne.....	11252	Wellington, N.Z.	11795	Caldera.....	9030
Monte Video.....	6770			Callao.....	9790
Natal.....	6810	GLASGOW to		Cape of Good Hope	5885
New Orleans.....	4690	Acapulco.....	12105	Cape Horn.....	7220
New York.....	3245	Adelaide.....	8780	Coquimbo.....	8860
Otago.....	12170	Algoa Bay.....	6375	Demerara.....	3850
Panama.....	11350	Antigua.....	3865	Halifax, N.S.....	2505
Pernambuco.....	4130	Arica.....	9770	Havana.....	4010
Quebec.....	2930	Ascension.....	3940	Jamaica.....	4030
Rio Janeiro.....	5200	Auckland, N.Z.....	12155	Melbourne.....	11070
Rio Grande.....	5870	Azores.....	1495	Monte Video.....	5990
San Francisco.....	13670	Bahia.....	4540	Natal.....	6630
Sierra Leone.....	3000	Barbadoes.....	3040	New Orleans.....	4510
St. John's, N.F.....	2205	Belize.....	4605	New York.....	3065
St. Vincent (Atlan.)	2525	Bermuda.....	3090	Panama.....	11170
Sydney.....	10840	Bonny.....	4205	Pernambuco.....	3950
Valparaiso.....	8870	Boston, U.S.A.....	3065	Quebec.....	2750
Wellington, N.Z.....	11870	Buenos Ayres.....	6315	Rio Janeiro.....	5020
		Caldera.....	9245	San Francisco.....	13490
		Callao.....	10005	St. John's, N.F.....	2035
		Cape Coast Castle.....	3905	St. Vincent (Atlan.)	2345
		Cape of Good Hope.....	6900	Sydney, N.S.W.....	10660
		Cape Horn.....	7435	Valparaiso.....	8690
		Chagres.....	5025	Wellington, N.Z.....	11690
		Cobija.....	9525		
		Coquimbo.....	9075	ANTWERP to	
		Demerara.....	4065	Acapulco.....	12170
		Fiji Islands.....	11755	Adelaide.....	8845
		Guayaquil.....	10705	Algoa Bay.....	6440
		Halifax, N.S.....	2720	Antigua.....	3930
		Havana.....	4225	Arica.....	9835
		Hobart Town.....	11315	Ascension.....	4005
		Honolulu.....	13365	Auckland, N.Z.....	12220
		Jamaica.....	4245	Azores.....	1560
		Melbourne.....	11285	Bahia.....	4605
		Monte Video.....	6205	Barbadoes.....	3905
		Natal.....	6845	Bermuda.....	3155
		New Orleans.....	4725	Bonny.....	4270
		New York.....	3280	Boston, U.S.A.....	3130
		Otago.....	12205	Buenos Ayres.....	6330
		Panama.....	11385	Caldera.....	9260
		Pernambuco.....	4165	Callao.....	10020
		Quebec.....	2965	Cape of Good Hope	6115
		Rio Janeiro.....	5235	Cape Horn.....	7450
		Rio Grande.....	5905	Coquimbo.....	9090
		San Francisco.....	13705	Demerara.....	4080
		Sierra Leone.....	3035	Halifax, N.S.....	2735
		St. John's, N.F.....	2240	Havana.....	4240
		St. Vincent (Atlan.)	2560	Jamaica.....	4160
		Sydney, N.S.W.....	10875	Melbourne.....	11300
		Valparaiso.....	8905	Monte Video.....	6220
		Wellington, N.Z.....	11905	Natal.....	6860
				New Orleans.....	4740
		CARDIFF to		New York.....	3395
		Acapulco.....	11940	Panama.....	11400
		Adelaide.....	8615	Pernambuco.....	4180
		Algoa Bay.....	6210	Quebec.....	2989
		Antigua.....	3700	Rio Janeiro.....	5250
		Arica.....	9605	San Francisco.....	13720
		Ascension.....	3775	St. John's, N.F.....	2255
		Auckland, N.Z.....	11920	St. Vincent (Atlan.)	2575
		Azores.....	1330	Sydney.....	10895
		Bahia.....	4375	Valparaiso.....	8920
		Barbadoes.....	3675	Wellington, N.Z.....	11920
		Bermuda.....	2925		

BRITISH NAVAL SERVICE.

Amount Estimated for 1886-87 (*gross*), £13,650,626. (Expended in 1884-85, £11,625,809, voted in 1885-86, £12,694,900.)

ADMIRALTY OFFICE (£203,400). NAVAL DEPARTMENT,—Whitehall. Hours 11 to 5.

LORDS COMMISSIONERS (£15,900). FIRST LORD, Right Hon. Lord G. F. Hamilton, M.P. (with house), £4,500.

ASSISTANT SECRETARY AND PRINCIPAL CLERK, Richard D. Awdry, £1,200.

CONTROLLER OF NAVY, Vice-Admiral W. Graham, C.B. £2,293.

DIRECTOR OF NAVAL CONSTRUCTION, W. H. White, £2,000.

DIRECTOR OF VICTUALLING DEPARTMENT, Henry F. R. Yorke, £800.

DIRECTOR OF NAVY CONTRACTS, John Collett, £1,200.

MEDICAL DIRECTOR-GENERAL, Sir John W. Reid, K.C.B., M.D. £1,300.

ACCOUNTANT-GENERAL AND COMPTROLLER NAVY PAY, Sir Gerald FitzGerald, K.C.M.G., £1,500.

DIRECTOR OF TRANSPORTS, Vice-Admiral Sir Francis William Sullivan, K.C.B., £1,593.

DIRECTOR OF WORKS, Colonel Percy G. L. Smith, R.E., £1,300.

HYDROGRAPHER, Captain William J. L. Wharton, £1,264.

SUPERINTENDENT OF NAVAL RESERVES, Rear-Admiral John Kennedy E. Baird, £1,596.

THE BOARD OF TRADE.

ORGANISATION AND DIVISION OF LABOUR.

IN the Civil Service, the Board of Trade, over which Sir Michael Hicks Beach at present presides, is usually termed the "Big Board," more because of the numerous matters dealt with by the Board than from the large number of members—nominal for the most part—of which it really consists. The Board practically consists of the president, the permanent secretary (Mr. H. G. Calcraft, C.B.), and an assistant secretary attached to the Marine Department, Finance Department, Harbour Department, Railway Department, Statistical Department, and Fisheries Department respectively.

Marine Department.

(Assistant Secretary, Mr. THOS. GRAY, C.B.)

SUBJECTS.—Admiralty Courts. Albert Medal. Chains, Cables, and Anchors Act. Crew Spaces. Discipline. Distressed Seamen, Relief of (Rules and Principles). Examinations of Masters, Mates, and Engineers. International Code of Signals. International Questions concerning Shipping. Life-Saving Apparatus. Lights and Fog Signals. Lime and Lemon Juice, and Anti-Scorbutics. Medical Scale for

Merchant Ships. Mercantile Marine Offices and Local Marine Boards. Misconduct, Inquiries into. Naval Reserve. Passenger Ships, Survey of. Rewards for Saving Life. Tonnage, Measurement of. Training Ships. Unseaworthy Ships. Wrecks and Casualties, Inquiries into. Wreck Register.

Finance Department.

(Assistant Secretary, Mr. ALLEN STONEHAM.)

SUBJECTS.—Accounts and Estimates of all Departments of the Board of Trade. Accounts of Lighthouse Boards. Accounts of Consuls and Colonial Shipping Masters, including Accounts of Relief of Distressed Seamen. Accounts of Superintendents and Receivers of Wreck. Claims on Owners of Vessels. Greenwich Sixpences Fund. Life Assurance Companies Returns. Merchant Seamen's Fund (Pensioners'). Money Orders. Pensions. Greenwich Hospital Fund. Seamen's Savings Banks. Seamen's Temporary Deposit Bank (Liverpool). Wages and Effects of Deceased Seamen.

Harbour Department.

(Assistant Secretary, Mr. CECIL TREVOR, C.B.)

SUBJECTS.—Average. Explosives Act. Fisheries. Fore-shores. Freight. Harbours. Liability of Shipowners. Lighthouses and fixed Fog-signals. Loans to Harbour Authorities. Local Charges on Shipping. Pilotage. Protection of Navigable Channels, Ports, &c. Provisional Orders, Piers and Harbours. Provisional Orders, Oyster and Mussel Fisheries. Quarantine. Registration of Ships. Standards. Suez Canal. Tidal Waters, Wreck and Salvage.

Railway Department.

(Assistant Secretary, Mr. E. COURTENAY BOYLE, C.B.)

SUBJECTS.—Alkali Act. Art Unions. Charters. Copyright and Trade Marks. Gas Companies. Industrial Exhibitions Act. Joint Stock Companies. Partnerships. Railways. Registry of Designs. Telegraphs and Electric Lighting.

Statistical or Commercial Department.

(Assistant Secretary, Mr. R. GIFFEN.)

SUBJECTS.—Statistics generally, and Corn Returns.

Fisheries Department.

(Assistant Secretary, Mr. GEO. J. SWANSTON, C.B.)

SUBJECTS.—Administration of Merchant Shipping (Fishing Boats) Act, 1883, &c., and other matters relating to the Sea Fishing Service.

Bankruptcy Department.

Inspector-General in Bankruptcy, Mr. JOHN SMITH.
Chief Official Receiver, Mr. R. P. HARDING.

SUBJECTS.—General Administration of Bankruptcy Act, and regulations and procedure thereunder.

*General Registry and Record Office of Shipping and Seamen,
Custom House, London, E.C.*

(Registrar-General of Shipping and Seamen,
Mr. J. CLARK HALL.)

SUBJECTS.—Transcripts of Registers of British Ships. Ownership and Mortgages, &c. Custodian of Agreements with Crews. Official Logs. Apprentices' Indentures. Certificates of Masters, Mates, and Engineers, Royal Naval Reserve.

BRITISH AND FOREIGN AMBASSADORS.

	British Ambassadors, &c., Abroad.	Foreign Ambassadors in England.
America, U.S., Argentine Con- federation ...	Hon. Francis John Pakenham ...	Robert T. Lincoln.
Austria	Sir Augustus Berkeley Paget, P.C., G.C.B.	Don Dominiquez.
Belgium	Lord Vivian, K.C.M.G., C.B. ...	Count Karolyi.
Brazil	Vacant	Baron H. Solvyns.
Bulgaria, &c. ...	N. R. O'Connor, C.B., C.M.G. (Acting)	Baron De Penedo.
Chili	Hugh Fraser, Esq.	Dor. Ambrosio Montt.
China	Sir John Walsham, Bart.	Tew Shin Fun.
Colombia	F. R. St. John, Esq.	Dr. Carlos Holguin.
Denmark	Hon. Sir E. J. Monson, K.C.M.G., C.B.	M. de Falbe.
Ecuador .....	.....	Gen. Salazar.
France	Rt. Hon. Earl of Lytton, G.C.B., G.C.S.I., C.I.E.	M. Waddington.
Germany	Sir Edward Baldwin Malet, P.C., G.C.M.G., K.C.B.	Count von Hatzfeld.
Greece	Sir Horace Rumbold, Bart., K.C.M.G.	M. Genuadius.
Italy	The Rt. Hon. the Earl of Dufferin, K.P., G.C.B., G.C.M.G.	Count Corti.
Japan	Hon. Sir F. R. Plunkett, K.C.M.G.	Jushie Kawase Masataka.
Mexico	Sir Spencer St. John, K.C.M.G.	Senor Don Ignacio Mariscal.
Morocco	Sir W. Kirby Green, Esq., K.C.M.G. ....	.....
Netherlands ...	Hon. William Stuart, C.B.	Count C. M. E. G. van Bylandt.
Persia	Rt. Hon. Sir H. Drummond Wolff, G.C.M.G., K.C.B.	Prince Malcolm Khan Nazim ul Mouk.
Peru	Col. Sir Chas. Edward Mansfield, K.C.M.G.	Senor don José Rafael de Irene.
Portugal	George Glynn Petre, Esq., C.B.	M. Martius d'Antas.
Roumania	Sir F. C. Lascelles, K.C.M.G.	Prince Jon Ghica.
Russia	Sir R. B. D. Morier, P.C., G.C.B.	M. de Staal.
Spain	Sir Francis Clare Ford, P.C., C.B., K.C.M.G.	Don Cipriano del Mazo
Sweden	Edwin Corbett, Esq.	Count Piper.
Switzerland .....	.....	.....
Turkey	Sir W. Arthur White, P.C., G.C.M.G., C.B.	Rustem Pacha.

TABLE OF CONSULAR FEES.

(Consular Fees Order in Council, 1888.)	General.	China and Japan.
For Declaration to register, transfer, and transmission of ships, &c.....	£ s. d.	Dols. Cents.
" Endorsing change of master upon register.....	0 5 0	1 0
" Recording mortgage of ship or shares.....	0 4 0	0 50
" Recording the transfer of " ".....	1 0 0	2 50
" Recording discharge of " ".....	1 0 0	1 50
" Every sale of " ".....	1 0 0	2 0
" Inspection of ship's register.....	0 1 0	2 50
" Every seaman engaged.....	0 2 0	0 25
" Alteration in shipping agreements.....	0 2 0	0 50
" Every seaman discharged or left behind.....	0 2 0	0 50
" Every desertion.....	0 2 0	0 50
" Attesting a seaman's will.....	0 2 0	0 50
" Examination of provisions or water.....	0 10 0	2 50
On Disbursements for distressed seamen.....		
mission 2½ per cent.		
For Noting protest.....	0 7 6	1 0
" Order of survey.....	0 10 0	1 0
" Extending protest or survey.....	1 0 0	3 0
And if over 200 words, for every 100 words.....	0 2 6	0 50
For attendance, out of Consular Office, ship, &c., over and above travelling ex.,.....	2 0 0	5 0
" Attending valuation of goods, if less than 2 hours.....	1 0 0	2 50
Do. for each additional hour 10/- with maximum per day.....	4 4 0	5 0
Do. Maximum.....	4 4 0	5 0
For attending sale.....	2 2 0	10 0
Certificate of landing.....	0 10 0	2 0
Bill of health.....	0 10 0	2 50

HER MAJESTY'S CONSULAR OFFICERS.

A. and C.G., Agent and Consul-General. C.G., Consul-General.
C., Consul. V.C., Vice-Consul.

Adrianople (Turkey), Henry A. Cumberbatch, C.

Ajaccio, see *Corsica*

Aleppo (Turkey), T. S. Jago, C.

Alexandretta (Turkey), A. Catoni, V.C.

Alexandria (Egypt), Major Sir E. Baring, K.C.S.I., C.B., C.I.E.,
A. and C.G.; Sir C. Cookson, K.C.M.G., C.B., C. and Judge
of H.M. Chief Consular Court; J. S. Willmore, V.C.; J. Mackie,
C.M.G., Surgeon. Consulate, S. Inglott, Chief Clerk; S. F.
Huri, Cancellier; Sergt. Harris, Constable. Court, W.
Chevalier, Chief Clerk; J. Fabri, Second Clerk

Algiers and Tunis, Lieut.-Col. Sir R. L. Playfair, K.C.M.G.,
C.G.; G. W. Crawford, V.C.

Alicante (Spain), J. W. Cumming, V.C.

Amoy (China), R. J. Forrest, C.

Amsterdam, see *North Holland*

Ancona (Italy), A. P. Tomassini, V.C.

Angoli, see *Loanda*

Angora (Turkey), Tom Newton, V.C.

Antananarivo (Madagascar), W. C. Pickersgill, V.C.

Antofagasta (Chili), J. Barnett, V.C.

Antwerp (Belgium), G. R. Perry, C.G.

Archangel (Russia), J. B. Cobb, V.C.

Arica (Chili), W. Finlayson, V.C.

- Asuncion* (Paraguay), W. Stewart, C.
Austrian States, see *Trieste*
Azores, or *Western Islands*, see *St. Michael's*
Baghdad (Turkey), Col. W. Tweedie, C.S.I., C.G.
Bahia (Brazil), G. A. Stevens, C.
Balearic Isles, see *Palma*
Baltimore (United States), Captain W. F. Segrave, C.
Bangkok (Siam), Captain H. M. Jones, V.C., Minister-Resident
 and C.G.; E. B. Gould, C., Frank Wooldrige, C.
Barcelona (Spain), F. Woolridge, C.
Barranquilla (Colombia), R. A. Joy, V.C.
Bassin (Denmark), R. Armstrong, V.C.
Batavia (for Java, Netherlands), N. McNeill, C.
Batoum (Russia), D. R. Peacock, V.C.
Bayonne (France), Captain R. P. Leeson, V.C.
Bengazi (Tripoli), Donald A. Cameron, C.
Beni Saf (France), J. O. Stewart, V.C.
Berbera, L. P. Walsh, V.C.
Berdiansk (Russia), H. R. Lowe, V.C.
Bergen (Norway), H. D. Janson, V.C.
Berlin (Germany), Herr G. Von Bleichröder, C.G.
Beyrout (Turkey), G. J. Eldridge, C.M.G., C.G. in Syria; H. C.
 A. Eyres, V.C.; E. Shoucair, Cancellier
Bilbao (Spain), H. Young, C.
Bogotá (Colombia), W. J. Dickson, Minister-Resident and C.G.;
 T. H. Wheeler, V.C.
Bône (France), A. de la Croix, V.C.
Bordeaux, &c. (France), W. Ward, C.
Borneo, see *Brunei*
Bosna-Serai (for Bosnia and Herzegovina), E. B. Freeman, C.
Boston (United States, for States of Massachusetts, Vermont, New
 Hampshire and Maine), C. A. Henderson, C.; W. H. Stuart, V.C.
Boulogne (France), E. W. Bonham, C.; Capt. R. N. Surplice, V.C.
Bremen (Germany), C. H. Rieke, V.C.
Bremerhaven, &c. (Germany), J. Schwoon, V.C.
Brest (France), J. G. Haggard, C.
Brindisi (Italy), S. G. Cocoto, V.C.
Brunei (Borneo), Dr. P. Leys, C.G.
Brussa (Turkey), H. Scholer, V.C.
Brussels (Belgium), T. E. Jelfes, V.C.
Bucharest (Roumania), H. Browne, V.C.
Buda-Pesth (Hungary), Sir Arthur Nicholson, K.C.I.E., C.G.;
 J. Brüle, V.C.
Buenos Ayres, R. Bridgett, C.
Bulgaria, N. R. O'Connor, C.B., C.M.G., A. and C.G.
Bushire (Persia), Colonel Ross, C.G.; G. Lucas, V.C.
Bussorah (Turkey), P. J. E. Robertson, Acting C.
Cádiz (Spain), P. Henderson, C.
Caen (France), Captain A. J. Leeson, V.C.
Cagliari (Italy), E. Pernis, C.
Cairo (Egypt), Sir E. Baring, K.C.B., K.C.S.I., C.G.; R. Borg, C.
Calais (France), W. Thomsett, V.C.
Caldera (Chili), H. B. Beazley, V.C.
California (United States), see *San Francisco*
Callao (Peru), Alfred St. John, C.; G. G. Wilson, V.C.
Camareons, H. H. Johnston, V.C.

- Canary Isles* (Spain), see *Teneriffe*
Canea, see *Crete*
Cape Verde Islands (Portugal), see *St. Vincent*
Caracas (Venezuela), H. L. Boulton, C.
Carthagená (Colombia), T. C. Stevenson, V.C.
Carthagená (Spain), W. Milvain, V.C.
Cayenne (France), C. W. Wyndham, C.
Ceará (Brazil), Dr. W. Studart, V.C.
Cephalonia (Greece), J. Saunders, V.C.
Charleston (Car., United States), F. J. Cridland, C.
Chefoo (China), B. C. G. Scott, C.
Cherbourg (France), Hon. H. P. Vereker, LL.D., C.
Chiengmai (Siam), (for the territories of Chiengmai, Lakon, and Lampoonichi), E. H. French, V.C.
Chinkiang (China), H. B. Bristow, C.
Christiania (Norway), T. Michell, C.B., C.G. ; W. R. Hearn, V.C.
Ciudad Bolívar (Venezuela), J. H. Reddan, V.C.
Civita Vecchia (Italy), Luigi Sperandio, V.C.
Colombia, see *Bogotá*
Comoro Islands (see *Zanzibar*), W. G. Aston, C.
Constantinople (Turkey), Sir J. H. Fawcett, K.C.M.G., C.G. and Judge of Consular Court ; W. H. Wrench, C.M.G., C. ; C. J. Tarring, Assistant Judge ; J. S. Willmore and F. H. Jones, Assistants. Court, H. Silley, Chief Clerk ; P. Sarell, Clerk of Registers ; C. E. Hanson, Clerk of Papers. Consulate, G. Simmons, Clerk of Correspondence ; C. Stavrides, Dragoman ; J. C. W. Alvarez, Assistant Dragoman ; C. W. Hoyland, First Clerk ; J. Calvert, Second Clerk ; R. Scudamore, Third Clerk ; H. Thompson, Fourth Clerk ; J. Patterson, M.D., Surgeon-Superintendent of Hospital, attending Prisoners ; K. Ohannesian, Assistant-Surgeon ; H. Newbolt, Harbour Master
Copenhagen (Denmark), A. Percy Inglis, C.
Coquimbo (Chile), J. Grierson, C.
Corea, W. G. Aston, C.G. provisionally ; W. R. Carles, V.C. provisionally
Corfu (Greece), R. Reade, C.
Corsica, Island of (France)—(Ajaccio), F. Hay Newton, C.
Corunna (for Galicia and the Asturias), E. H. Walker, C.
Costa Rica (Cen. America), J. P. H. Gastrell, Min.-Resident and C.G.
Crete, Island of (Turkey), A. Biliotti, C.M.G., C.
Cuba, Island of, see *Havanna*
Curacao (Netherlands), A. D. Jesurun, C.
Cuxhaven (Germany), J. P. Angelbeck, V.C.
Damascus (Turkey), J. Dickson, C.
Damietta (Egypt), A. Anhoury, C.A.
Dantzig (Germany), M. Durège, V.C.
Dardanelles (Turkey), J. F. Russell, V.C.
Dar-al Baida (Morocco), R. S. Hunter, V.C.
Dieppe (France), H. W. Lee-Jortin, V.C.
Dunkirk (France), E. Taylor, C.
Düsseldorf (for Westphalia and Rhenish Provinces), T. R. Mulvany, C.
Elsinore (Denmark), L. M. F. Schmidt, V.C.
Enos (Turkey), J. Rossy, V.C.
Erzeroum, Colonel Everett, C.
Fayal (Azores, Portugal), T. Dart, V.C.

- Fernando Po* (West Coast of Africa), E. H. Hewett, C.M.G., C.
Fiume and Segna (Austria), G. L. Faber, C.
Florence (for North Italy and East Tuscany), Sir Dominic E. Colnaghi, Kt., C.G.
Florida, East and West (United States), see *Mobile*
Flushing (Netherlands), P. L. de Bruyne, V.C.
Foochow (China), G. Phillips, C.
Frankfort-on-Maine (Germany, for Frankfort, the Province of Hesse Nassau, the Grand Duchy of Hesse, and Grand Duchy of Baden), C. Oppenheimer, C.G.
Galatz (Roumania), P. Sanderson, C.M.G., C.G. for the Kingdom of Roumania, and H.M. Commissioner respecting the navigation of the Danube; A. H. E. Petre, V.C.
Gallipoli (Italy), A. Odoni, V.C.
Galveston (Texas, United States), W. T. Lyall, C.
Geneva (Switzerland), D. F. Barton, C.
Genoa (Italy, for Provinces of Porto Maurizio, Genoa, and Massa), M. Y. Brown, C.
Ghilan (Mazanderan and Asterabad Provinces), see *Resht*
Gijon (Spain), W. Penlington, V.C.
Gothenburg (Sweden), J. Duff, C.; R. Duff, V.C.
Grenada (Nicaragua), M. Vaughan, C.
Grey Town (Nicaragua), H. F. Bingham, C.
Guatemala (Central America), J. P. H. Gastrell, Minister-Resident and C.G.; A. Chapman, C.
Guayaquil (Ecuador), G. Chambers, C.
Guiana (French), see *Cayenne*
Hakodate and Neegati (Japan), J. C. Hall, C.
Hamburg (Germany, for the Free Cities and Territories of Hamburg, Lübeck, and Bremen, the Province of Schleswig-Holstein, &c.), Hon. C. S. Dundas, C.G.; G. A. Pogson, V.C.
Hankow (China), Christopher Gardner, C.
Harvey Islands, see *Raratonga*
Havana (Cuba, Spain), A. de C. Crowe, C.G.; C. A. C. Birch, V.C.
Havre (France), F. Bernal, C.G. for the Departments of the Lower Seine, Calvados, the Eure, and the Orne; J. S. Rowell, V.C.
Hayti, see *Port-au-Prince*
Helsingfors (Russia), C. J. Cooke, V.C.
Hioo and Osaka (Japan), J. J. Elmslie, C.
Hodeida and Camaran (Arabia), Atta Muhammad, V.C.
Honduras (Central America), J. P. H. Gastrell, Minister-Resident and C.G.
Honfleur (France), F. Lethbridge, V.C.
Honolulu (Sandwich Islands), Major J. H. Wodehouse, Commissioner and C.G.
Huelva (Spain), E. Diatz, V.C.
Iceland, see *Reykjavik*
Ichang (China), W. Gregory, C.
Iloilo (Spain), G. Sheldermine, V.C.
Ionian Islands, see *Corfu*
Java, Island of, see *Batavia*
Jeddah (Turkey), C. G. Wood, C.; A. Razzach, V.C.
Jerusalem (Turkey), N. T. Moore, C.M.G., C.
Kertch (Russia), H. W. Hunt, V.C.
Kinkiang (China), G. Jamieson, C.
Kiungchow (China), E. L. Oxenham, C.

- Königsberg and Pillau* (Germany), R. Zietke, V., C.
Koordistan (comprising the Pashalics of Erzeroum, Kharfoot, Diarbekir, Moosh, and Van), Colonel H. E. Chermiside, C.B., C.M.G., C.; G. P. Devey, Assistant
Kustendjie (Roumania), W. B. Churchward, V.C.
La Guayra (Venezuela), M. Andersen, V.C.
La Plata, see *Buenos Ayres*
Laraiche (Morocco), J. Imossi, V.C.
La Rochelle (France), R. S. Warburton, V.C.
Leghorn (Italy), Lieut. H. E. O'Neil, R.N., C.
Leipzig (Germany), Baron B. von Tauchnitz, C.G. for Saxony, Saxe Weimar, Saxe Coburg and Gotha, Saxe Meiningen and Saxe Altenburg; Baron C. von Tauchnitz, V.C.
Liberia, Captain J. Shaw Hay, C.M.G., C.
Lima (Peru), Colonel Sir C. E. Mansfield, K.C.M.G., Minister-Resident and C.G.
Lisbon (Portugal) (not yet filled up); C. O'Donnell, V.C.
Loanda (Portugal, for Province of Angolá and its Dependencies, with the Islands of San Thomé and Principe) (Vacant)
L'Orient (France), F. Jullien, V.C.
Louisiana, see *New Orleans*
Lübeck (Germany), H. L. Behncke, V.C.
Macao (China, Portugal) (Vacant)
Maceio (Brazil), G. W. Wucherer, V.C.
Madeira (Portugal), W. Keene, C.; J. E. Croker, V.C.
Madrid (Spain), W. Macpherson, C.
Maine (United States), see *Boston*
Malaga (Spain), Alex. Finn, C.
Manilla (Philippine Islands, Spain), A. Gollan, C.
Maracaibo (Venezuela), H. Bremermann, V.C.
Marseilles (France), C. G. G. Perceval, C.
Martinique, &c. (France), W. Lawless, C.
Maryland (United States), see *Baltimore*
Massachusetts (United States), see *Boston*
Masagan (Morocco), A. Redman, V.C.
Memel (Germany), H. Pietsch, V.C.
Mentone (France), C. Palmaro, V.C.
Messina (Italy), P. E. Rainford, V.C.
Milan (Italy), J. Whitmore, V.C.
Mobile (United States), W. Barneywall, V.C.
Mogador (Morocco), C. A. Payton, C.
Mollendo (Peru), G. F. Robilliard, V.C.
Monte Video (Uruguay), Ernest M. Satow, C.M.G. Minister-Resident and C.G.; C. J. Ayre, C.
Mozambique (for Portuguese Possessions, East Coast of Africa), H. H. Johnston, C.
Munich (Germany), J. H. Smith, C.
Muscat, Lieut.-Col. G. Mockler, Acting C.
Nagasaki (Japan), J. J. Quin, C.
Nantes (France), B. Pauncefote, C.
Naples (for South Italy), E. H. B. Hartwell, C.
Navigators' Islands, Colonel De Coetlozon, C.
Neegata (Japan), see *Hakodate*
New Caledonia, Island of, see *Noumea*
New Hampshire (United States), see *Boston*
New Orleans (United States), A. Fonblanque, C.

- New York* (United States, and for the States of New York, Delaware, New Jersey, Rhode Island, Connecticut, Colorado, Kansas, and Nebraska), W. L. Booker, C.M.G., C.G.; W. R. Hoare, C.; G. Fraser, V.C.; H. Nugent, Second V.C.
- Newchwang* (China), T. Walters, C.
- Nicaragua* (Cen. America), J. P. H. Gastrell, M n. Resident and C.G.
- Nice* (France), J. C. Harris, C.
- Nicolaieff* (Russia), A. Woodhouse, V.C.
- Ningpo* (China), A. Frater, C.
- Nord* (Pas de Calais and the Somme), to reside at Boulogne, E. W. Bonham, C.
- North Holland, Groningen, Friesland, Texel, Drenthe, Overysse, Ulricht, and Gilderland*, W. C. Robinson, Amsterdam, C.
- Noumea* (New Caledonia, France), E. L. Layard, C.M.G., C.
- Nyassa* (Central Africa), see *Territories adjacent to the Nyassa*; A. G. S. Hawes, C.
- Odessa* (Russia), T. B. Sandwith, C.B., C.G.; P. Stevens, C.
- Oil Rivers* (Africa, W. C.), see *Territories adjacent to*
- Old Calabar* (West Coast of Africa), E. H. Hewett, C.
- Omoa and Puerto Cortes* (Central America), J. F. Debrot, C.
- Oporto* (Portugal), O. J. F. Crawford, C.; H. Grant, V.C.
- Oran* (France), A. Boozo, VC.
- Osaka* (Japan), see *Hiogo*
- Ostend* (Belgium), F. G. Thellusson, V.C.
- Pagoda Island* (China), C. W. Everard, V.C.
- Pakhoi* (China), C. F. R. Allen, C.
- Palermo* (Italy), William Stigand, C.; J. H. Towsey, V.C.
- Palma* (Balearic Islands, Spain), F. W. Mark, C.
- Panama* (Colombia), L. Joel, C.G.
- Pará* (Brazil), E. Kanthack, C.
- Paraíba* (Brazil), S. H. Agnew, V.C.
- Paraguay*, see *Asuncion*
- Paris* (France), F. Atlee, C.M.G., C.; J. F. D. Bowden, V.C.
- Patras* (Greece), T. Wood, C.; F. B. Wood, V.C.
- Payta* (Peru), A. Blacker, V.C.
- Pennsylvania* (United States), see *Philadelphia*
- Pensacola* (United States) O. C. Howe, V.C.
- Pernambuco* (Brazil, for Provinces of Paraíba, Alagoas, Rio Grande do Norte, and Ceara), A. Cohen, G.; W. Hughes, V.C.
- Philadelphia* (U. S.), Captain R. C. Clipperton, C.; G. Crump, V.C.
- Philippine Islands*, see *Manilla*
- Philippopolis* (Turkey), R. W. Graves, V.C.
- Pillau* (Germany), see *Königsberg*
- Piræus* (Greece), H. L. Dupuis, C.
- Port-au-Prince* (Hayti), Z. E. Johrab, C.G.
- Port Said* (Egypt), W. P. Burrell, C.
- Portland* (United States, for the State of Maine), G. H. Starr, V.C.
- Portland* (Oregon, United States), J. Laidlaw, V.C.
- Porto Rico* (Spain), R. H. Hertslet, C.
- Prevesa* (Turkey), C. A. Blakeney, V.C.
- Puerto Cabello* (Venezuela), M. R. Price, V.C.
- Puerto Cortes*, see *Omoa*
- Quito* (Ecuador), C. W. Lawrence, Minister-Resident and C.G.
- Rabat* (Morocco), J. Frost, V.C.
- Ras Hafoun* (Egypt), see *Tajurrah and Ras Hafoun*
- Resht* (Persia, for Provinces of Ghilan, Mazanderan, and Asterabad)

- Réunion, Island of* (France), C. St. John, C.
Reykjavik (Iceland), W. G. S. Paterson, C.
Rhodes (Turkey), J. F. Rhodes, V.C.
Riga (Russia), A. Raby, C.
Rio de Janeiro (Brazil), W. G. Abbott, C.G.; E. Nicolini, V.C.
Rio Grande do Sul (Brazil), C. W. Bennett, C.
Rome (for Central Italy), A. R. Franz, C.
Rosario (Argentine Republic), H. M. H. Mallet, V.C.
Rotterdam (Netherlands), H. Turing, C.
Rouen (France), Major W. P. Chapman, C.; R. Bernal, V.C.
Roustchouk (Turkey), W. H. Dalziel, C.
Saffee (Morocco), G. P. Hunot, V.C.
Saigon (Cochin China, French), C. F. Tremlett, C.
St. Jago de Cuba (Spain), F. W. Ramsden, V.C.
St. Malo (France), Hon. E. Henniker-Major, V.C.
St. Michael's (Azores, Portugal), W. Read, C.
St. Nazaire (France)
St. Petersburg (Russia), J. Michell, C.
St. Thomas and St. Croix (Denmark), Herman McDougal, C.
St. Vincent (Cape Verde Islands), J. V. Miller, C.
Salonica (Turkey), J. E. Blunt, C.B., C.G. for Salonica, Monaster, Janina, &c.; A. C. Wratislaw, Assistant
Salvador (Cen. America), J. P. H. Gastrell, Min.-Resident and C.G.
Samoa (Pacific Islands), H. W. B. de Coetlogon, V.C.
Samos (Turkey), D. L. Marc, C.
San Domingo (Hayti), D. Coen, V.C.
San Francisco (United States), Denis Donohue, C.; C. Mason, V.C.
San José (Costa Rica), C. Sharpe, C.
Sandwich Islands, see *Honolulu*
Santa Catarina, see *Rio Grande do Sul*
Santander (Spain), L. G. F. March, V.C.
Santiago (Chile), J. Gordon Kennedy, Minister-Resident and C.G.
Santos (Brazil, for Provinces of Sao Paulo and Paraná), F. H. Cowper, C.
Sarawak (Borneo), Dr. P. Leys, C.; J. Hardie, V.C.
Savannah (United States), W. Robertson, V.C.
Saxony, see *Leipzig*
Scutari (Turkey), H. H. Lamb, V.C.
Sebastopol (Russia), Capt. Harford, V.C.
Segna (Austria), see *Fiume*
Seville (Spain), E. F. Johnston, V.C.
Shanghai (China), P. J. Hughes, C.G.; W. R. Carles, V.C., and G. Brown, V.C.
Siam, see *Bangkok*
Smyrna (Turkey), F. Holmwood, C.B., C.G.; H. D. Barnham, V.C. Cancellier; Rev. J. B. Smith, Chaplain; J. McCraith, Surgeon; E. R. Barker, Law Clerk; C. Chumarian, First Dragoman; M. Chumarian, Second Dragoman; W. Joly, Chief Clerk; P. F. C. Zohrab, Assist. Clerk; S. Watkins, Hospital Keeper; J. McCraith, Dispenser.
Soudan (Eastern), H. D. Barnham, C., to reside at Suakin
South Holland, Zealand, &c., H. Turing, C., Rotterdam
Spezia (Italy), J. Greenham, V.C.
Stettin (Germany), W. H. Reid, V.C.
Stockholm and Eastern coast of Sweden, R. D. Hay, C.
Suakin (Egypt), see *Soudan*

- Suez* (Egypt), J. R. Norrish, V.C.
Sulina (Roumania), A. H. Veequeray, V.C.
Surinam (Netherlands), Captain W. Wyndham, C.
Swatow (China), E. C. Baber, C.
Swinemunde (Germany), C. Rose, V.C.
Syra (Greece), J. Anderson, C.
Tabreez (Persia), Colonel Stewart, C.B., C.M.G., C.G.
Taganrog (Russia), W. G. Wagstaff, C.
Tahiti (Georgian or Windward Islands), Captain C. Talbot, C.;
 G. C. Miller, V.C.
Tainan (China), P. L. Warren, C.
Talcahuano (Chile), F. Elton, V.C.
Tamatave (Madagascar)
Tamsui (China), H. A. Giles, C.
Tangier (Morocco), Sir W. Kirby Green, K.C.M.G., Minister
 Plenipotentiary and C.G.; H. E. White, C.
Teheran (Persia), Rt. Hon. Sir H. Drummond Wolff, P.C.,
 K.C.M.G., G.C.B., Envoy Extraordinary, Minister Plenipoten-
 tiary and C.G.; H. T. Guinness, V.C.
Teneriffe (Canary Islands, Spain), J. H. Dupuis, C.; J. H.
 Edwards, V.C.
Terceira (Azores, Portugal), A. de R. B. de Faria, V.C.
Territories adjacent to the Oil Rivers (Africa), H. H. Johnston, V.C.
Territories of the African Kings and Chiefs adjacent to Lake Nyassa,
 A. G. S. Hawes, C.
Territories under the Protectorate of Germany in the district of the
Cameroons, H. H. Johnston, V.C.
Thebes (Egypt), Ahmed Mustapha, C.A.
Tientsin (China), Byron Brennan, C.
Tokio (Japan), Hugh Fraser, Envoy Extraordinary, Minister Pleni-
 potentiary and C.G.; J. H. Longford, V.C.
Tonnay-Charante (France), G. L. Link, Consular Agent
Toulon (France), L. J. B. V. Jouve, V.C.
Trebizond (for Pashalics of Trebizond and Sivas, Turkey), H. Z.
 Longworth, C.
Trieste (Austria), Sir R. F. Burton, K.C.M.G., C.; P. F. P.
 Cautley, V.C.
Tripoli (Turkey), F. R. D. Hay, C.G.; A. Dickson, V.C.
Truxillo (Honduras Republic), W. Melhado, C.
Tunis, G. T. Ricketts, C.
Valparaiso (Chile), W. L. Newman, C.; A. F. Howard, V.C.
Van, see *Koordistan*
Varna (Turkey), A. G. Brophy, V.C.
Venice (Italy), E. de Zuccato, V.C.
Vermont (United States), see *Boston*
Vienna (Austria), G. Nathan, C.G.
Volo (Greece), A. A. C. E. Merlin, C.
Warsaw (Russia), H. Grant, C.G.
Wenchow (China), W. G. Stronach, C.
Western Islands, see *St. Michael's*
San Salvador (Salvador), J. Moffat, C.
Wuhu (China), C. M. Ford, C.
Zag-a-Zig (Egypt), S. Felice, V.C.
Zanzibar, Col. C. B. Evan Smith, C.S.I., Agent and C.G.; F.
 Holmwood, C.B., C.; W. B. Cracknall, V.C.; H. L. Churchill,
 V.C.; F. J. Berkeley, V.C.

TABLE OF COMPARISON OF ADMIRALTY KNOTS
AND STATUTE MILES.

Knots	Miles.	Knots	Miles.	Knots	Miles.	Knots	Miles.	Knots	Miles.
1'00	1'1515	6'00	6.9091	11'00	12'6667	16'00	18'4242	21'00	24'1818
1'25	1'4394	6'25	7'1970	11'25	12'9545	16'25	18'7121	21'25	24'4697
1'50	1'7273	6'50	7'4848	11'50	13'2424	16'50	19'0000	21'50	24'7576
1'75	2'0152	6'75	7'7727	11'75	13'5303	16'75	19'2879	21'75	25'0455
2'00	2'3030	7'00	8'0606	12'00	13'8182	17'00	19'5758	22'00	25'3333
2'25	2'5909	7'25	8'3485	12'25	14'1061	17'25	19'8636	22'25	25'6212
2'50	2'8788	7'50	8.6364	12'50	14'3939	17'50	20'1515	22'50	25'9091
2'75	3'1667	7'75	8'9242	12'75	14'6818	17'75	20'4394	22'75	26'1970
3'00	3'4545	8'00	9'2121	13'00	14'9697	18'00	20'7273	23'00	26'4848
3'25	3'7424	8'25	9'5000	13'25	15'2576	18'25	21'0152	23'25	26'7727
3'50	4'0303	8'50	9'7879	13'50	15'5455	18'50	21'3030	23'50	27'0606
3'75	4'3182	8'75	10'0758	13'75	15'8333	18'75	21'5909	23'75	27'3485
4'00	4'6061	9'00	10'3636	14'00	16'1212	19'00	21'8788	24'00	27'6364
4'25	4'8939	9'25	10'6515	14'25	16'4091	19'25	22'1667	24'25	27'9242
4'50	5'1818	9'50	10'9394	14'50	16'6970	19'50	22'4545	24'50	28'2121
4'75	5'4697	9'75	11'2273	14'75	16'9848	19'75	22'7424	24'75	28'5000
5'00	5'7576	10'00	11'5152	15'00	17'2727	20'00	23'0303	25'00	28'7879
5'25	6'0455	10'25	11'8030	15'25	17'5606	20'25	23'3182	25'25	29'0758
5'50	6'3333	10'50	12'0909	15'50	17'8485	20'50	23'6061	25'50	29'3636
5'75	6'6212	10'75	12'3788	15'75	18'1364	20'75	23'8939	25'75	29'6515

Miles.	Knots.	Miles.	Knots.	Miles.	Knots.	Miles.	Knots.	Miles.	Knots.
1'00	8684	6'00	5'2105	11'00	9'5526	16'00	13'8947	21'00	18'2368
1'25	1'0855	6'25	5'4276	11'25	9'7697	16'25	14'1118	21'25	18'4539
1'50	1'3026	6'50	5'6447	11'50	9'9868	16'50	14'3289	21'50	18'6711
1'75	1'5197	6'75	5'8618	11'75	10'2039	16'75	14'5461	21'75	18'8882
2'00	1'7368	7'00	6'0789	12'00	10'4211	17'00	14'7632	22'00	19'1053
2'25	1'9539	7'25	6'2961	12'25	10'6382	17'25	14'9803	22'25	19'3224
2'50	2'1711	7'50	6'5132	12'50	10'8553	17'50	15'1974	22'50	19'5395
2'75	2'3882	7'75	6'7303	12'75	11'0724	17'75	15'4145	22'75	19'7566
3'00	2'6053	8'00	6'9474	13'00	11'2895	18'00	15'6316	23'00	19'9737
3'25	2'8224	8'25	7'1645	13'25	11'5066	18'25	15'8487	23'25	20'1908
3'50	3'0395	8'50	7'3816	13'50	11'7237	18'50	16'0658	23'50	20'4079
3'75	3'2566	8'75	7'5987	13'75	11'9408	18'75	16'2829	23'75	20'6250
4'00	3'4737	9'00	7'8158	14'00	12'1579	19'00	16'5000	24'00	20'8421
4'25	3'6908	9'25	8'0329	14'25	12'3750	19'25	16'7171	24'25	21'0592
4'50	3'9079	9'50	8'2500	14'50	12'5921	19'50	16'9342	24'50	21'2763
4'75	4'1250	9'75	8'4671	14'75	12'8092	19'75	17'1513	24'75	21'4934
5'00	4'3421	10'00	8'6842	15'00	13'0263	20'00	17'3684	25'00	21'7105
5'25	4'5592	10'25	8'9013	15'25	13'2434	20'25	17'5855	25'25	21'9276
5'50	4'7763	10'50	9'1184	15'50	13'4605	20'50	17'8026	25'50	22'1447
	4'9934	10'75	9'3355	15'75	13'6776	20'75	18'0197	25'75	22'3618

N.B.—The Admiralty knot equals 6,080 ft. ; 1 statute mile equals 5,280 ft.

THE SUEZ CANAL.

The Suez Canal was projected by Mons. Ferdinand de Lesseps in 1852. It was opposed by Lord Palmerston, but approved of by the French, Austrian, Russian, Turkish, and Egyptian Governments. The cutting was commenced in 1858, and the first vessel passed from the Mediterranean to the Red Sea on August 15, 1865, and though the first ship of any considerable tonnage which passed through the canal was the *Primo* (on February 17, 1867), French and English vessels entered in November, 1868; and in 1869 the course was declared suitable for the mail steamers. The official opening took place in November, 1869.

In July, 1872, the Canal Company levied their dues on the gross tonnage of ships, and the British Government demanded an International Conference, which met at Constantinople in November and December, 1873, and accepted certain proposals of the Porte, against which M. de Lesseps in vain protested, and after attempting the closing of the Canal for four days in April, 1874, he gave way.

There are 400,000 shares in this undertaking, and in 1875 the British Government bought from the then Khedive of Egypt 176,602, or nearly one half of the whole. A premium of $12\frac{1}{2}$ per cent. was paid for these, the price being £3,976,000, though the actual cost was £4,076,565, a large commission having been paid to Messrs. Rothschild. The present capital of the Suez Canal Company is £16,867,000, £8,000,000 in shares and the rest in debentures. Dividends, which were only 5 per cent. in 1874, $5\frac{1}{16}$ per cent. in 1876, and 6 per cent. in 1879, have advanced up to 17 per cent. in 1883.

The proportions of Canal against Cape voyages are about as 104 to 60. An average of 76 per cent. of the tolls are from British vessels, $9\frac{1}{2}$ per cent. from French, 4 per cent. from Dutch, and $10\frac{1}{2}$ per cent. of all other nations.

One-seventh of our foreign commerce now passes through the Canal, which was 13 years in construction, is 87 miles long and 26 feet deep, and has shortened by one-third all voyages to the East. The British Government, in May and June 1877 claimed for the Canal international neutrality. In October, 1887, a Convention agreeing to the neutralisation of the Canal was signed at Paris by the representatives of Great Britain and France. The Canal was opened to night traffic (over part of its length only) in the year 1886 to steamers equipped with the electric light, by which the duration of transit was considerably lessened, vessels making the passage in about 20 hours as compared with the average ordinary passage of 36 hours. On March 1, 1887, the entire length of the Canal was thrown open to night traffic, and ships availing themselves of this permission now pass through the Canal with comparative ease in 16 hours.

TRAFFIC OF THE CANAL.

Year.	No. of Ships.	Net Tonnage.	Year.	No. of Ships.	Net Tonnage.
1870	486	436,609	1880.....	2,026	3,057,421
1871.....	705	761,467	1881.....	2,727	4,136,779
1872.....	1,082	1,160,743	1882.....	3,198	5,074,808
1873.....	1,173	1,367,767	1883.....	3,307	5,775,861
1874.....	1,264	1,631,650	1884.....	3,284	5,871,500
1875.....	1,494	2,009,984	.....	3,624	6,335,752
1876.....	1,452	2,096,771	.....	3,100	5,767,655
1877.....	1,663	2,355,447	.....	3,137	5,903,024
1878.....	1,593	2,269,678	.....	3,440	6,640,834
1879.....	1,477	2,263,332			

Total Receipts in each of the last six years.		Sold	In	
Year.	£		1887.	1888.
1882.....	2,536,383			
1883.....	2,740,933			
1884.....	2,616,332			
1885.....	2,601,998			
1886.....	2,241,371			
1887.....	2,420,413			

No. of Passengers who passed through the Canal in each of the following years.		Civil	In	
Year.			1887.	1888.
1875.....	84,446			
1880.....	101,551			
1881.....	90,524			
1882.....	131,068			
1883.....	110,177			
1884.....	151,916			
1885.....	205,051			
1886.....	171,411			
1887.....	182,997			

No. of Passengers who passed through the Canal in each of the following years.		Pilgrims—	Total	
Year.			1887.	1888.
1875.....	84,446			
1880.....	101,551			
1881.....	90,524			
1882.....	131,068			
1883.....	110,177			
1884.....	151,916			
1885.....	205,051			
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1884.....	151,916			
1885.....	205,051			
1886.....	171,411			
1887.....	182,997			

The vessels passing through the Canal for the years 1886 and 1887 were as follow

	1887	1888	Nationality.	1887	1888
Steamers	2,226	2,540	British	2,330	2,625
Mail steamers	655	643	French	185	187
Steamers in ballast	98	17	German	159	163
Transports	144	150	Dutch	123	121
Gunboats	23	18	Austro-Hungarian	83	58
Despatch boats	19	22	Italian	138	146
Corvettes and Cruisers	22	22	Norwegian	28	39
Ironclads	3	3	Spanish	26	26
Yachts	10	4	Russian	22	16
Torpedo boats	1	3	American	3	1
Steam frigates	0	3	Turkish	19	20
Tugboats	1	3	Portuguese	7	
Sailing vessels	1	1	Japanese	2	
Tanks	1	2	Egyptian	5	
Dredgers	2	0	Samoa	—	
			Danish	—	
			Belgian	1	
			Chinese	7	0
			Hawaian	—	1
	3,137	3,440			

ELEVATION OF CONTINENTS.

AVERAGE HEIGHT ABOVE SEA LEVEL.

	feet.		feet.
Europe	670	North America	1,150
Asia	1,140	South America	1,100

THE GULF STREAM

is equal to a river 50 miles wide, 1,000 feet deep, current four miles an hour, with a temperature of 65° Fahrenheit, cooling down to 40° as it gets north.

MOUNTAINS.

HEIGHT ABOVE THE SEA LEVEL.

	Feet.		Feet.		Feet.
Ararat	17,266	Gibraltar	1,432	Pic Blanc	10,205
Ben Nevis	4,358	Hindoo Koosh ..	20,800	Puy-Dome	4,750
Bighorn	14,430	Illimani	24,450	St. Bernard	11,006
Chimborazo	21,440	Kaa-Mowna	18,400	Sinai	7,500
Cotopaxi	19,600	Lebanon	9,520	Snowdon	3,571
Dawalagiri	26,862	Mont Blanc	15,781	Sorata	25,250
Egmont	11,433	Olympus	6,500	Teneriffe	12,036
Everest	29,002	Orizaba	17,371	Vesuvius	3,978

HIGHEST LATITUDES ATTAINED BY ARCTIC EXPLORERS.

Year.	Explorers.	N. Latitude.
1607—Hudson		80d 23m 00s
1773—Phipps (Lord Musgrove)		80d 48m 00s
1806—Scoresby		81d 12m 42s
1827—Parry		82d 45m 30s
1874—Meyer (on land)		82d 09m 00s
1875—Markham (Nares' expedition)		83d 20m 26s
1876—Payer		83d 07m 00s
1884—Lockwood (Greely's party)		83d 24m 00s

A SHIP'S BELLS.

TIME, A.M.		TIME, P.M.	
1 Bell	12.30	1 Bell	12.30
2 Bells	1.0	2 Bells	1.0
3 "	1.30	3 "	1.30
4 "	2.0	4 "	2.0
5 "	2.30	5 "	2.30
6 "	3.0	6 "	3.0
7 "	3.30	7 "	3.30
8 "	4.0	8 "	4.0
1 Bell	4.30	1 Bell	4.30
2 Bells	5.0	2 Bells	5.0
3 "	5.30	3 "	5.30
4 "	6.0	4 "	6.0
5 "	6.30	5 "	6.30
6 "	7.0	6 "	7.0
7 "	7.30	7 "	7.30
8 "	8.0	8 "	8.0
1 Bell	8.30	1 Bell	8.30
2 Bells	9.0	2 Bells	9.0
3 "	9.30	3 "	9.30
4 "	10.0	4 "	10.0
5 "	10.30	5 "	10.30
6 "	11.0	6 "	11.0
7 "	11.30	7 "	11.30
8 "	Noon	8 "	Midnight

One Sailing Knot, 6,174 ft. One Statute Mile, 5,280 ft. (5-6 knot).
A sailor's day commences at 12 noon.

RELATIVE PRICES OF COALS.

The Ton of 20 cwt.—The Imperial Chaldron of 25½ cwt.—The Newcastle Chaldron of 53 cwt.

Per Ton.	Per Imperial Chaldron	Per New-castle Chaldron	Per Ton.	Per Imperial Chaldron	Per New-castle Chaldron	Per Ton.	Per Imperial Chaldron	Per New-castle Chaldron
s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
2 0	2 6'60	5 3'60	9 9	12 5'17	25 10'05	17 6	22 3'75	46 4'50
2 3	2 10'42	5 11'55	10 0	12 9'00	26 6'00	17 9	22 7'57	47 0'45
2 6	3 2'25	6 7'50	10 3	13 0'82	27 1'95	18 0	22 11'40	47 8'40
2 9	3 6'07	7 3'45	10 6	13 4'65	27 9'00	18 3	23 3'22	48 4'35
3 0	3 9'90	7 11'40	10 9	13 8'47	28 5'85	18 6	23 7'05	49 0'30
3 3	4 1'72	8 7'35	11 0	14 0'30	29 1'80	18 9	23 10'87	49 8'25
3 6	4 5'55	9 3'30	11 3	14 4'12	29 9'75	19 0	24 2'70	50 4'20
3 9	4 9'37	9 11'25	11 6	14 7'95	30 5'70	19 3	24 6'52	51 0'15
4 0	5 1'20	10 7'20	11 9	14 11'77	31 1'65	19 6	24 10'35	51 8'10
4 3	5 5'02	11 3'15	12 0	15 3'60	31 9'60	19 9	25 2'17	52 4'05
4 6	5 8'85	11 11'10	12 3	15 7'42	32 5'55	20 0	25 6'00	53 0'00
4 9	6 0'67	12 7'05	12 6	15 11'25	33 1'50	20 3	25 9'82	53 7'95
5 0	6 4'50	13 3'00	12 9	16 3'07	33 9'45	20 6	26 1'65	54 3'90
5 3	6 8'32	13 10'95	13 0	16 6'90	34 5'40	20 9	26 5'47	54 11'85
5 6	7 0'15	14 6'90	13 3	16 10'72	35 1'35	21 0	26 9'30	55 7'80
5 9	7 3'97	15 2'85	13 6	17 2'55	35 9'30	21 3	27 1'13	56 3'75
6 0	7 7'80	15 10'80	13 9	17 6'37	36 5'25	21 6	27 4'95	56 11'70
6 3	7 11'62	16 6'75	14 0	17 10'20	37 1'20	21 9	27 8'77	57 7'65
6 6	8 3'45	17 2'70	14 3	18 2'02	37 9'15	22 0	28 0'60	58 3'60
6 9	8 7'27	17 10'65	14 6	18 5'85	38 5'10	22 3	28 4'42	58 11'55
7 0	8 11'10	18 6'60	14 9	18 9'67	39 1'05	22 6	28 8'25	59 7'50
7 3	9 2'92	19 2'55	15 0	19 1'50	39 9'00	22 9	29 0'07	60 3'45
7 6	9 6'75	19 10'50	15 3	19 5'32	40 4'95	23 0	29 3'90	60 11'40
7 9	9 10'57	20 6'45	15 6	19 9'15	41 0'90	23 3	29 7'72	61 7'35
8 0	10 2'40	21 2'40	15 9	20 0'97	41 8'85	23 6	29 11'55	62 3'30
8 3	10 6'22	21 10'35	16 0	20 4'80	42 4'80	23 9	30 3'37	62 11'25
8 6	10 10'05	22 6'30	16 3	20 8'62	43 0'75	24 0	30 7'20	63 7'20
8 9	11 1'87	23 2'25	16 6	21 0'45	43 8'70	24 3	30 11'02	64 3'15
9 0	11 5'70	23 10'20	16 9	21 4'27	44 4'65	24 6	31 2'85	64 11'10
9 3	11 9'52	24 6'15	17 0	21 8'10	45 0'60	24 9	31 6'67	65 7'05
9 6	12 1'35	25 2'10	17 3	21 11'92	45 8'55	25 0	31 10'50	66 3'00

QUANTITIES OF COALS, CINDERS, AND PATENT FUEL EXPORTED
FROM THE UNITED KINGDOM TO FOREIGN COUNTRIES AND
BRITISH SETTLEMENTS ABROAD IN 1887 AND 1888.

	1887 Tons.	1888 Tons.
Total	24,460,967	26,968,462

COAL OUTPUT

UNITED KINGDOM.

Year.	No. of Collieries.	Total of the United Kingdom.	Year.	No. of Collieries.	Total of the United Kingdom.
1871	2,760	117,264,028	1880	3,904	146,818,523
1872	3,001	123,492,316	1884	3,554	160,757,779
1873	3,527	127,011,747	1885	3,488	159,351,418
1875	3,933	131,867,105	1887	3,382	162,119,812
1877	4,112	134,610,000	1888	3,624	169,935,219

OUTPUT OF PIG-IRON
UNITED KINGDOM.
[1830 TO 1888].

Year.	Production.	Year.	Production.	Year.	Production.
	Tons.		Tons.		Tons.
1830	677,417	1870	5,963,515	1880	7,791,833
1839	1,248,781	1871	6,627,179	1883	8,490,224
1843	1,215,353	1872	6,741,929	1884	7,575,604
1847	1,999,608	1873	6,566,451	1885	7,297,295
1852	2,701,000	1874	5,991,408	1886	6,870,665
1854	3,069,838	1875	6,365,462	1887	7,441,927
1865	4,819,254	1879	6,009,434	1888	7,898,674

PRODUCTION OF STEEL RAILS.
UNITED KINGDOM.
[BESSEMER.]

Year.	In United Kingdom.	On West Coast.	Percentage of Production on West Coast.	Quantity Exported.
	Tons.	Tons.		Tons.
1878	633,733	..	..	439,392
1879	519,718	177,839	34	463,878
1880	739,910	230,507	31	693,606
1881	1,023,740	256,636	25	820,800
1882	1,235,785	291,999	24	936,949
1883	1,097,174	298,447	27	971,165
1884	784,968	261,489	33	527,460
1885	706,583	198,022	29	484,255
1886	730,343	273,338	37	512,903
1887	1,021,847	446,363	43.69	760,180
1888	979,083	469,717	47	707,154

ANNUAL INCREASE SINCE 1878 IN THE USE OF STEEL FOR
STEAMERS AND SAILING VESSELS BUILT UNDER LLOYD'S
SURVEY.

APPROXIMATE WEIGHT OF MATERIAL.

Year.	Steel.		Iron.	
	Steam.	Sailing.	Steam.	Sailing.
	Tons.	Tons.	Tons.	Tons.
1878	2,682	..	243,717	66,897
1879	..	..	78,411	25,603
1880	21,895	1,002	268,433	24,009
1881	41,019	1,900	354,301	41,190
1882	69,269	7,486	403,644	67,711
1883	84,931	8,515	445,375	68,818
1884	65,386	8,016	274,183	78,011
1885	92,549	18,431	89,104	95,000
1886	96,583	18,352	49,320	58,697
1887	195,907	14,433	24,052	28,150

THE PRINCIPAL NATIONS, GOVERNMENTS, RELIGIONS, POPULATION, AREA, PUBLIC DEBT, RULERS, &c., OF THE WORLD.

ABBREVIATIONS:—D = Duchy; E = Empire; F.S. = Free State; G.D. = Grand Duchy; K. = Kingdom; O.E. = Ottoman Empire; P. (in Government) = Principality; R. = Republic; S. = Sultany; B. = Buddhism; C. = Christian; D.R.C. = Dutch Reformed Church; G.C. = Greek Church; G.R. = Græco-Russian; L. = Lutheran; M. = Mahometan; P. (in Religion) = Protestant; P.E. = Protestant Episcopal; R.C. = Roman Catholic; R.P. = Reformed Protestant.

Nation.	Government.	Religion.	Population.	Area, (Sq. Miles).	Debt, £ English.	Ruler.	Capital.	Population of Capital.
Anhalt	D.	R.P.	250,000	869	5,186,303	Friedrich Gen. D. J. A. Roca	Dessau	27,584
Argentina Republic	R.	R.C.	3,000,000	515,700	24,180,000	Gen. D. J. A. Roca	Buenos Ayres	300,000
Austria-Hungary	E.	R.C.	39,640,384	240,942	390,545,252	Franz Josef I.	Vienna	1,103,600
Alsace-Lorraine	L.	R.C.	1,566,670	5,580	1,184,545	—	Mülhausen	69,620
Baden	D.	R.C.	1,570,000	5,824	16,935,527	Friedrich I.	Metz	54,716
Bavaria	K.	R.C.	5,284,778	29,375	67,134,982	Otto	Mannheim	61,370
Belgium	K.	R.C.	5,969,975	11,373	100,000,000	Leopold II.	Brussels	260,000
Bolivia	R.	R.C.	2,400,000	472,000	6,400,000	Señor Don G. Pacheco	La Paz	405,900
Brazil, U. S. of	R.	R.C.	13,130,000	3,219,000	68,600,000	Dom Pedro II.	Rio Janeiro	15,000
Brunswick	D.	L.	361,205	1,536	3,866,188	Prince Albrecht	Wolfenbüttel	39,000
Bulgaria	P.	G.C.	2,007,920	24,366	1,250,000	Prince Ferdinand	Sofia	85,385
Chili	R.	R.C.	2,524,476	281,173	17,468,725	Don Francisco	Santiago	20,500
China	E.	B.	404,180,000	4,470,000	—	—	Peking	200,000
Colombia	R.	R.C.	4,000,000	331,773	3,072,000	Gen. Bernardo Soto	Bogotá	1,000,000
Costa Rica	R.	R.C.	236,000	23,200	4,000,000	Christian IX.	San José	100,000
Denmark	K.	L.	2,050,000	14,789	11,214,179	—	Copenhagen	275,000
Eastern Roumelia	S.	C.	976,000	13,590	—	—	Philippopolis	12,000
Ecuador	R.	R.C.	1,000,000	248,370	3,274,000	Señor Caamaño	Quito	33,450
Egypt	Kor.P.P.	M.	6,850,000	494,000	103,000,000	Tewfik	Cairo	25,000
France	R.	R.C.	37,700,000	304,093	1,332,500,000	M. F. Sadi Carnot.	Paris	368,000
Germany	R.	P.	47,221,000	212,028	30,000,000	William II.	Berlin	1,316,000
Great Britain & Ireland	K.	P.E.	37,074,492	120,822	—	—	London	4,500,000
Greece	R.	G.C.	1,076,453	251,111	28,000,000	Georgios I.	Athens	85,000
Hungary	R.	R.C.	1,357,000	46,860	1,485,000	Gen. Burillo	Santiago de G.	59,000
Italy	R.	R.C.	730,000	10,204	1,281,994	Gen. Salomon	Port au Prince	38,000
Japan	R.	P.	495,030	348	7,688,394	—	Hankow	410,000
Korea	R.	P.	80,566	6,677	315,000	Kakakana I.	Hankow	20,500
Latvia	K.	L.	940,000	2,866	1,766,250	Indwig IV.	Hankow	52,000
Lithuania	K.	P.	4,012,700	12,643	89,943,262	Wilhelm III.	Amsterdam	366,000
Malta	R.	R.C.	323,274	49,568	6,270,000	Gen. Bagration	Tegucigalpa	12,000
Mexico	R.	R.C.	29,699,781	1,105,551	21,215,000	Umberto I.	Rome	273,268

Nation.	Government.	Religion.	Population.	Area, (Sq. Miles) English.	Debt, £ English.	Ruler.	Capital.	Population of Capital.
Japan	E.	B.	37,863,987	147,487	66,852,866	Mutsu Hito	Tokio	992,837
Liberia	R.	P.	1,068,000	14,300	18,000	H. R. W. Johnson	Monrovia	3,000
Lippe	P.	P.	72,000	445	96,550	Waldemar	Detmold	8,653
Lübeck	F.S.	P.	121,800	124	15,473,000		Lübeck	55,500
Madagascar	E.	P.	3,500,000	228,500	—	Ranavalona	Antananarivo	80,000
Mecklenburg-Schwerin	G.D.	P.	570,000	4,834	1,144,800	Friedrich Franz III.	Schwerin	32,000
Mexico	R.	R.C.	10,460,703	751,177	31,000,000	Gen. Diaz	Mexico	300,000
Montenegro	R.	G.C.	250,000	3,550	—	Nicholas I.	Cettigné	2,000
Morocco	S.	M.	3,000,000	219,000	—	Muley-Hassan	Fez	80,000
Nicaragua	R.	R.C.	400,000	51,560	168,586	Don Adam Cardenas	Managua	12,000
Norway	K.	P.	1,925,000	122,869	6,007,874	Oscar II.	Christiania	128,300
Oldenburg	G.D.	P.	342,717	2,417	1,894,435	Grand Duke Nicholas	Oldenburg	20,575
Orange Free State	R.	P.	113,000	41,485	200,000	Sir John Henry Brand	Bloemfontein	2,600
Paraguay	R.	R.C.	476,000	92,000	3,592,215	Gen. Caballero	Asuncion	18,000
Persia	E.	M.	7,653,000	636,600	—	Nasr-ed-din	Teheran	200,000
Peru	R.	R.C.	2,970,000	405,040	38,000,000	Gen. Caceres	Lima	101,500
Portugal	K.	R.C.	4,768,178	35,481	106,462,914	Carol I.	Lisbon	246,343
Romania	K.	I.	5,376,000	46,314	27,353,994	Alexander III.	Bucharest	222,000
Russia	E.	R.C.	103,000,000	2,081,022	519,160,000	Gen. Meezenitz	St. Petersburg	1,000,000
San Domingo	R.	R.C.	350,000	20,596	902,860	A. Moe-y-Gil	San Domingo	15,000
Salvador	D.	R.C.	634,120	7,228	980,000	Gen. Menendez	San Salvador	13,275
Saxe-Coburg-Gotha	D.	P.	194,600	816	14,308,614	Ernst II.	Gotha	28,100
Saxe-Meiningen	D.	P.	211,574	933	680,140	Georg II.	Coburg	15,780
Saxe-Weimar	G.D.	P.	313,830	1,421	317,197	Karl Alexander	Meiningen	11,227
Saxony	K.	P.	2,972,865	6,777	32,262,000	Albert I.	Weimar	21,213
Siam	P.	B.	1,901,118	18,757	8,000,000	Infant Son of Milan I. (abdut.)	Bangkok	245,550
Servia	K.	G.C.	600,000	280,303	—	Chulalonkoru I.	Madrid	500,000
Spain	K.	R.C.	16,925,180	197,767	—	Maria-de-las-Meraves	Stockholm	397,800
Sweden	R.	L.	4,717,189	173,974	12,789,210	Oscar II.	Stockholm	205,000
Switzerland	R.	P.	2,906,752	15,681	1,428,500		Geneva	68,300
Sweden	R.	D.R.C.	750,000	114,360	380,750	S. J. Paul Krüger	Pretoria	3,000
Switzerland	O.E.	M.	434,640,000	2,406,102	95,000,000	Abdul Hamid II.	Constantinople	600,000
Turkey	R.	P.&R.C.	61,000,000	3,547,390	356,743,564	Gen. Harrison	Washington	150,000
Turkey	R.	R.C.	559,668	72,111	12,466,039	Gen. Santos	Monte Video	104,500
Ukraine	R.	R.C.	2,121,988	566,159	5,168,000	Gen. Crespo	Caracas	56,000
Uruguay	P.	P.	53,901	118,800	—	Georg Victor	Arsen	2,477
Veracruz	K.	P.	1,971,000	7,675	21,450,000	Karl I.	Stuttgart	117,300
Wendland	S.	M.	300,000	9,190	—	Bargash-bin-Said	Zanzibar	90,000

USEFUL ADDRESSES.

BOARD OF TRADE.

Harbour Department—C. Cecil Trevor, Esq., Assist. Secretary.

Marine Department—Thos. Gray, Esq.

Local Marine Board: St. Katharine Dock House, Towerhill,
E.—Capt. J. Steele, Secretary.

Corporation of the Trinity House: Trinity Square.—John Inglis,
Esq., Secretary.

Pilotage Department—D. Keigwin, Principal.

Lights and Buoys Department— . Edwards.

Tonnage Measurement and Board of Trade Surveyors—82, Basinghall Street, E.C.

Engineer Surveyor-in-Chief — Thos. W. Trail, C.E., R.N.,
Inspector of Chain Cables and Anchor Testing Establishments.

Principal Surveyor for Tonnage—W. Moore.

Surveyor for Iron Ships—J. Wimbush.

Surveyor for Wood Ships—W. H. Turner.

Registrar General of Seamen: 82, Basinghall Street—Robert
Jackson, Esq., Secretary.

Sanitary Officer for Ships' Crews—J. F. Rotton, Assistant Secretary
to Local Government Board, Whitehall, S.W.

Meteorological Office: 116, Victoria Street, S.W.—Robert H.
Scott, Esq., F.R.S., Secretary.

Nautical Almanac Office: 3, Verulam Buildings, Gray's Inn, W.C.
—John Russel Hind, Esq., Superintendent.

Royal Observatory, Greenwich: Astron. Royal—William Henry
Mahoney Christie, F.R.A.S.

Lloyd's Register of Shipping: 2, White Lion Street, Cornhill,
E.C.

Lloyd's Captains' Rooms: Royal Exchange, E.C.—hours 9 to 6.

The Jerusalem, Cowper's Court, Cornhill.

The Baltic Rooms, Threadneedle Street.

Receiver of Wreck: J. C. Stockton, Queen's Warehousekeeper.

Chamber of Commerce: 1, Great College Street, Westminster,
S.W.—James Hole, Esq., Agent.

General Shipowners' Society: 12, St. Michael's Alley, Cornhill—
W. H. Cooke, Secretary.

Steam Shipowners' Association: 14, Leadenhall Street—W. C.
Morgan, Secretary.

Shipping World Offices: Gresham Press Buildings, 2, Little
Bridge Street, E.C.

Shipping Gazette and International Code List: 54, Gracechurch
Street.

Marryat's Code List: Richardson & Co., 13, Pall Mall, S.W.

National Lifeboat Institution: 14, John Street, Adelphi, W.C.—
Secretary.

Shipwrecked Mariners' Society Offices: Hibernia Chambers, London
Bridge, S.E.—W. R. Buck, Secretary.

The Sailors' Home: Dock Street, E., and Gravesend.

The Salvage Association: Birchin Lane, E.C.

TABLE OF COAL CONSUMPTION IN TONS, PER DIEM.

I.H.	Lbs. per Hour per Indicated Horse Power.																I.H.P.
	1'0	1'1	1'2	1'3	1'4	1'5	1'6	1'7	1'8	1'9	2'0	2'1	2'2	2'3	2'4	2'5	
12,000	128'5	141'4	154'2	167'1	180'0	192'8	205'7	218'5	231'4	244'2	257'0	270'0	282'8	295'7	308'5	321'4	334'3
11,000	117'8	129'6	141'4	153'2	165'0	176'7	188'5	200'3	212'1	223'9	235'6	247'5	259'2	271'0	282'8	294'6	306'4
10,000	107'1	117'8	128'5	139'3	150'0	160'7	171'4	182'1	192'8	203'5	214'2	225'0	235'7	246'4	257'1	267'8	278'5
9,000	96'4	106'0	115'7	125'3	135'0	144'6	154'2	163'9	173'5	183'2	192'9	202'5	212'1	221'7	231'4	241'0	250'7
8,000	85'7	94'2	102'8	111'4	120'0	128'5	137'1	145'7	154'2	162'8	171'4	180'0	188'5	197'1	205'7	214'2	222'8
7,000	75'0	82'5	90'0	97'5	105'0	112'5	120'0	127'5	135'0	142'5	150'0	157'5	165'0	172'5	180'0	187'5	195'0
6,000	64'2	70'7	77'1	83'5	90'0	96'4	102'8	109'2	115'7	122'1	128'5	135'0	141'4	147'8	154'2	160'7	167'1
5,000	53'5	58'9	64'2	69'6	75'0	80'3	85'7	91'0	96'4	101'8	107'1	112'5	117'8	123'2	128'5	134'0	139'3
4,000	42'8	47'1	51'4	55'7	60'0	64'2	68'5	72'8	77'1	81'4	85'7	90'0	94'2	98'5	102'8	107'1	111'4
3,000	31'4	35'3	39'0	42'7	46'5	50'2	53'9	57'6	61'3	65'0	68'7	72'4	76'1	79'8	83'5	87'2	90'9
2,000	21'4	23'5	25'7	27'8	30'0	32'1	34'2	36'4	38'5	40'7	42'8	45'0	47'1	49'2	51'4	53'5	55'6
1,000	10'7	11'8	12'8	13'9	15'0	16'1	17'1	18'2	19'3	20'3	21'4	22'5	23'6	24'6	25'7	26'8	27'8
800	8'6	9'4	10'3	11'1	12'0	12'8	13'7	14'6	15'4	16'3	17'1	18'0	18'8	19'7	20'6	21'5	22'4
700	7'5	8'2	9'0	9'7	10'5	11'2	12'0	12'7	13'5	14'2	15'0	15'7	16'5	17'2	18'0	18'7	19'4
600	6'4	7'1	7'7	8'3	9'0	9'6	10'3	10'9	11'6	12'2	12'8	13'5	14'1	14'8	15'4	16'1	16'8
500	5'3	5'9	6'4	6'9	7'5	8'0	8'6	9'1	9'6	10'2	10'7	11'2	11'8	12'3	12'8	13'4	13'9
400	4'3	4'7	5'1	5'6	6'0	6'4	6'8	7'3	7'7	8'1	8'6	9'0	9'4	9'8	10'3	10'7	11'1
300	3'2	3'5	3'8	4'2	4'5	4'8	5'1	5'4	5'8	6'1	6'4	6'7	7'1	7'3	7'7	8'0	8'3
200	2'1	2'3	2'6	2'8	3'0	3'2	3'4	3'6	3'8	4'1	4'3	4'5	4'7	4'9	5'1	5'3	5'5
100	1'0	1'1	1'2	1'3	1'4	1'5	1'6	1'7	1'8	1'9	2'0	2'1	2'2	2'3	2'4	2'5	2'6
80	85'7	94'2	1'0	1'1	1'2	1'3	1'4	1'5	1'6	1'7	1'8	1'9	2'0	2'1	2'2	2'3	2'4
60	64'3	70'7	77'1	83'5	90'0	96'4	1'0	1'1	1'2	1'3	1'4	1'5	1'6	1'7	1'8	1'9	2'0
40	42'8	47'1	51'4	55'7	60'0	64'2	68'5	72'8	77'1	81'4	85'7	90'0	94'2	98'5	1'0	1'1	1'2
20	21'4	23'5	25'7	27'8	30'0	32'1	34'2	36'4	38'5	40'7	42'8	45'0	47'1	49'2	51'4	53'5	55'6
10	10'7	11'8	12'8	13'9	15'0	16'1	17'1	18'2	19'3	20'3	21'4	22'5	23'6	24'6	25'7	26'8	27'8
5	5'3	5'9	6'4	6'9	7'5	8'0	8'6	9'1	9'6	10'2	10'7	11'2	11'8	12'3	12'8	13'4	13'9

NOTE.—To find the consumption of a vessel, say, of 5,500 I.H.P. at 1'4 lb. per I.H.P. per hour, take the 5,500 in the first column, which gives 75'0 tons the 500 in the same column, which gives 7'5 tons, and add the two together = 82'5 tons per 24 hours; or, for example, 5,500 I.H.P. x 1'4 lb. x 24 hours = 132'0 tons per 24 hours.

GENERAL STATISTICS OF STEAMERS ACCORDING TO THEIR FLAG.* From the *Bureau Veritas Répertoire Général*, 1889-90.

FLAGS.	Steamers of 100 tons net and upwards.			Steamers under 100 tons net.			Steamers recorded as lost.		
	No.	Tonnage.		No.	Tonnage.		No.	Tonnage.	
		Gross.	Net.		Gross.	Net.		Gross.	Net.
British.....	5,143	7,507,885	4,775,802	791	124,415	44,275	145	162,280	105,051
German.....	623	771,998	3,291	47	5,855	3,291	10	6,414	4,779
French.....	448	747,512	488,842	70	8,071	4,147	10	10,505	6,730
American.....	426	545,590	379,046	20	2,596	1,432	10	10,904	7,584
Spanish.....	344	411,713	267,917	42	5,172	2,885	7	8,441	5,457
Italian.....	199	290,041	183,045	14	1,741	975	3	3,496	1,943
Dutch.....	169	209,368	149,447	7	927	397	4	4,313	2,954
Norwegian.....	314	191,953	139,281	32	4,019	2,472	4	1,671	1,245
Russian.....	223	172,649	113,207	14	1,585	846	4	1,452	973
Swedish.....	391	162,616	120,456	64	7,768	5,241	3	1,186	147
Austrian.....	111	148,060	96,039	17	2,225	1,077	2	3,196	2,048
Danish.....	182	143,282	96,144	21	9,944	1,515	4	6,586	4,830
Japanese.....	140	116,424	75,928	1	143	80	1	921	571
Belgian.....	53	59,895	66,429	38	4,555	1,808	3	2,749	1,975
Brazilian.....	125	70,150	45,498	5	662	413	2	1,840	4,131
Greek.....	65	63,375	39,401	5	634	275	2	736	447
Portuguese.....	35	39,639	25,239	...	...	...	...	...	...
Chinese.....	38	37,118	26,467	...	...	...	...	...	...
Chilian.....	34	36,620	23,195	...	...	...	...	...	...
Turkish.....	31	31,284	19,800	...	...	...	...	...	...
Egyptian.....	50	24,139	14,444	...	...	...	...	...	...
Argentine.....	16	15,695	9,684	...	...	...	...	...	...
Hawaiian.....	9	9,652	6,042	...	...	...	...	...	...
Zanzibar.....	7	8,488	5,429	...	...	...	...	...	...
Peruvian.....	15	7,767	4,575	...	...	...	...	...	...
Uruguay.....	10	5,011	3,305	...	...	...	...	...	...
Mexican.....	7	3,977	2,574	...	...	...	...	...	...
Argentinian.....	5	2,516	1,454	...	...	...	...	...	...
Chilian.....	2	1,762	1,204	...	...	...	...	...	...
Argentinian.....	1	818	579	...	...	...	...	...	...
Chilian.....	2	719	435	...	...	...	...	...	...
Argentinian.....	2	547	351	...	...	...	...	...	...
Chilian.....	1	329	249	...	...	...	...	...	...
Argentinian.....	1	167	103	...	...	...	...	...	...
Chilian.....	1	907	137	...	...	...	...	...	...

GENERAL STATISTICS OF EACH FLAG OF SAILING VESSELS.*

From the *Bureau Veritas Répertoire Général*, 1889-90.

FLAGS.	Ships of 50 tons and upwards.		Ships under 50 tons.		Ships recorded as lost.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
British	12,047	3,915,378	6	230	343	144,630
American	5,338	1,777,532	1	44	147	53,087
Norwegian	3,486	1,339,584	...	...	190	73,387
German	1,768	712,592	177	6,490	132	45,911
Italian	2,458	678,182	4	179	71	23,273
Russian	2,133	454,465	1	35	18	5,924
Swedish	1,809	370,967	10	404	41	11,679
French	1,870	329,111	160	5,638	99	19,762
Greek	1,430	292,742	...	...	9	1,808
Spanish	1,370	255,700	...	...	6	1,589
Dutch	859	234,787	1	40	35	11,291
Danish	871	142,350	27	986	54	10,964
Austrian	350	127,873	...	...	17	9,417
Turkish	486	84,531	...	...	1	996
Chilian	147	73,034	...	...	14	9,410
Portuguese	332	72,051	...	...	11	2,754
Brazilian	271	58,130	...	...	...	...
Japanese	107	28,270	...	...	...	...
Argentine Republic	101	27,921	1	41	...	...
Peruvian	36	21,419	...	...	...	...
Hawaian	47	14,614	...	...	2	730
Nicaraguan	24	10,430	...	...	...	...
Uruguayan	37	10,398	...	...	1	576
Mexican	49	8,728	...	...	...	...
Siamese	15	6,544	...	...	...	...
Belgian	13	5,093	...	...	1	657
Guatemala	16	4,728	...	...	...	...
Haitian	22	4,633	...	...	...	...
Bolivian	5	3,992	...	...	1	194
Roumanian	19	3,354	...	...	...	...
Venezuelan	13	2,287	...	...	...	...
Ecuador	4	1,731	...	...	...	...
San Salvador	4	1,453	...	...	...	...
Colombian	7	1,334	...	...	...	...
Chinese	4	1,295	...	...	1	326
Liberian	3	916	...	...	...	...
St. Domingo	5	854	...	...	...	...
Costa Rica	2	551	...	...	...	...
Montenegrin	3	412	...	...	...	...
Jerusalem	1	393	...	...	...	...
Tahitian	1	209	...	...	...	...
Tunisian	2	130	...	...	...	...
Unknown	2	599	...	...	1	626
Total..	37,567	11,081,197	388	14,087	1,195	428,967

* The *Répertoire Général* only gives the sea-going vessels of at least 50 tons Register, therefore some difference must exist between the official statistics of each country and our list.

This statistic includes also all vessels under such tonnage that are classed with *Bureau Veritas*.

RATES OF FREIGHTS ON CERTAIN ARTICLES, AT THE FOLLOWING DATES, IN THE UNDERMENTIONED TRADES.

(Extracted principally from the Circulars of Messrs. Galbraith, Pembroke & Co.)

	Jan. 1875.	Jan. 1876.	Jan. 1877.	Jan. 1878.	Jan. 1879.	29 J'y 1879.	Jan. 1880.	Jan. 1881.	Jan. 1882.	Jan. 1883.	Jan. 1884.	Jan. 1885.	Jan. 1886.	Jan. 1887.	Jan. 1888.	Jan. 1889.
Grain Freights.—New York to United Kingdom or Continent (steamer) per quarter...	s. d. 8 6	s. d. 8 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 4 9	s. d. 5 9	s. d. 4 0	s. d. 5 0	s. d. 5 0	s. d. 4 3	s. d. 3 3	s. d. 3 3
Philadelphia to ditto	s. d. 8 6	s. d. 8 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 4 9	s. d. 5 9	s. d. 4 0	s. d. 5 0	s. d. 5 0	s. d. 4 3	s. d. 3 3	s. d. 3 3
Sao Francisco to United Kingdom or Havre (iron sailing ship) per ton, what	s. d. 8 6	s. d. 8 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 4 9	s. d. 5 9	s. d. 4 0	s. d. 5 0	s. d. 5 0	s. d. 4 3	s. d. 3 3	s. d. 3 3
Sao Francisco to Continent ..	s. d. 8 6	s. d. 8 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 4 9	s. d. 5 9	s. d. 4 0	s. d. 5 0	s. d. 5 0	s. d. 4 3	s. d. 3 3	s. d. 3 3
Odessa to United Kingdom ..	s. d. 8 6	s. d. 8 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 4 9	s. d. 5 9	s. d. 4 0	s. d. 5 0	s. d. 5 0	s. d. 4 3	s. d. 3 3	s. d. 3 3
Guano Freights.—Chinchas to United Kingdom ..	s. d. 8 6	s. d. 8 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 4 9	s. d. 5 9	s. d. 4 0	s. d. 5 0	s. d. 5 0	s. d. 4 3	s. d. 3 3	s. d. 3 3
Rice Freights.—Rice, ports, Rangoon, &c., to United Kingdom (sailing ship)	s. d. 8 6	s. d. 8 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 4 9	s. d. 5 9	s. d. 4 0	s. d. 5 0	s. d. 5 0	s. d. 4 3	s. d. 3 3	s. d. 3 3
Coal Freights (outward ss.)—Wales to Aden, per ton weight	s. d. 8 6	s. d. 8 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 4 9	s. d. 5 9	s. d. 4 0	s. d. 5 0	s. d. 5 0	s. d. 4 3	s. d. 3 3	s. d. 3 3
" Bombay "	s. d. 8 6	s. d. 8 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 4 9	s. d. 5 9	s. d. 4 0	s. d. 5 0	s. d. 5 0	s. d. 4 3	s. d. 3 3	s. d. 3 3
" Lisbon "	s. d. 8 6	s. d. 8 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 4 9	s. d. 5 9	s. d. 4 0	s. d. 5 0	s. d. 5 0	s. d. 4 3	s. d. 3 3	s. d. 3 3
" Gibraltar "	s. d. 8 6	s. d. 8 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 4 9	s. d. 5 9	s. d. 4 0	s. d. 5 0	s. d. 5 0	s. d. 4 3	s. d. 3 3	s. d. 3 3
Odessa	s. d. 8 6	s. d. 8 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 4 9	s. d. 5 9	s. d. 4 0	s. d. 5 0	s. d. 5 0	s. d. 4 3	s. d. 3 3	s. d. 3 3
Coal Freight (sailing vessel)—Wales to Aden, per ton weight	s. d. 8 6	s. d. 8 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 4 9	s. d. 5 9	s. d. 4 0	s. d. 5 0	s. d. 5 0	s. d. 4 3	s. d. 3 3	s. d. 3 3
" Bombay "	s. d. 8 6	s. d. 8 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 4 9	s. d. 5 9	s. d. 4 0	s. d. 5 0	s. d. 5 0	s. d. 4 3	s. d. 3 3	s. d. 3 3
" Lisbon "	s. d. 8 6	s. d. 8 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 4 9	s. d. 5 9	s. d. 4 0	s. d. 5 0	s. d. 5 0	s. d. 4 3	s. d. 3 3	s. d. 3 3
" Madeira "	s. d. 8 6	s. d. 8 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 4 9	s. d. 5 9	s. d. 4 0	s. d. 5 0	s. d. 5 0	s. d. 4 3	s. d. 3 3	s. d. 3 3
" Mauritius "	s. d. 8 6	s. d. 8 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 4 9	s. d. 5 9	s. d. 4 0	s. d. 5 0	s. d. 5 0	s. d. 4 3	s. d. 3 3	s. d. 3 3
" "	s. d. 8 6	s. d. 8 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 4 9	s. d. 5 9	s. d. 4 0	s. d. 5 0	s. d. 5 0	s. d. 4 3	s. d. 3 3	s. d. 3 3
" "	s. d. 8 6	s. d. 8 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 6 6	s. d. 4 9	s. d. 5 9	s. d. 4 0	s. d. 5 0	s. d. 5 0	s. d. 4 3	s. d. 3 3	s. d. 3 3

† Equal to about 10/ per quarter.

* No quotations.

COALING STATIONS OF THE WORLD.

HOME PORTS.—Belfast, Bristol, Cardiff, Cowes, Dartmouth, Dublin, Exeter, Falmouth, Glasgow, Grimsby, Hull, Liverpool, London, Milford Haven, Newport (Mon.), Oban, Plymouth, Portsmouth, Scilly, Southampton, Sunderland, Swansea, Stornoway, Tyne.

CONTINENTAL PORTS.—Boulogne, Bordeaux, Bourbon, Brellisnoes, Caen, Calais, Carentan, Cherbourg, Corunna, Cronstadt, Dieppe, Etaples, Fecamp, Gravelines, Hamburg, Havre, Honfleur, Lisbon, Pontreux, Port Audemer, Rouen, Rotterdam, St. Petersburg, Trouville, Valery, Vigo.

MEDITERRANEAN PORTS.—Alexandria, Barcelona, Beyrout, Brindisi, Cadiz, Cagliari (Sardinia), Constantinople, Corfu, Gibraltar, Malta, Marseilles, Naples, Palermo, Piræus, Port Said, Smyrna, Villafranca (Nice).

ADRIATIC PORTS.—Genoa, Trieste, Savona.

BLACK SEA PORTS.—Galatz, Ibrail, Odessa.

ARABIAN SEA PORTS.—Aden.

RED SEA PORTS.—Perim, Suez.

ATLANTIC PORTS.—Antigua, Ascension, Bahia, Baltimore, Barbadoes, Belize, Bermudas, Buenos Ayres, Cape Coast Castle, Cape Town, Ceara, Congo, Dix Cove, Elmina, Falkland Islands, Fernando Po, Gambia, Halifax, Havana, Loanda, Madeira, Martinique, Monte Video, Nassau, Natal, New Orleans, Para Maranham, Pernambuco, Pictou, Point de Galle, Port Stanley (F.I.), Quebec, Quetta, Rio Janeiro, Santa Cruz (Teneriffe), St. John's (N.F.), St. Lucia, St. Helena, St. Michaels (Azores), St. Thomas, St. Vincent, Sierra Leone, Simon's Town, Trinidad, Whyda.

PACIFIC AND INDIAN OCEAN.—Adelaide, Amoy, Aca-pulco, Auckland, Bangkok, Batavia, Bombay, Brisbane, Buscah, Bushire, Calcutta, Caldera, Callao, Chiloe, Christchurch, Coconada, Colombo, Coquimbo, Coronel, Diego Garcia, Esquimault, Fayal, Galle, Guayaquil, Hakodadi, Hobart Town, Hong Kong, Honolulu, King George's Sound, Kobi, Kurrachee, Labuan, Leruka, Lota, Madras, Manila, Mauritius, Mazatlan, Melbourne, Moulmein, Nagasaki, Otago, Panama, Payta, Penang, Perth, Rangoon, San Diego, San Francisco, Saigon, Seychelles, Shanghai, Singapore, Sourabaya, Sydney, Tahiti, Tamsiu Fechau, Tonkah, Torres Straits (Cape Breton), Trincomalee, Valparaiso, Wellington, Yokohama, Zanzibar.

PORT DIRECTORY OF THE WORLD.

PART I.—THE PORTS OF THE UNITED KINGDOM.

(COMPILED BY J. J. FLETCHER, C.E.)

LIST OF ABBREVIATIONS EMPLOYED.

Accn. = Accommodation for shipping, &c.	P. = Pilotage.
AST. = Average Spring Tides.	C. = Compulsory.
Auth. = Authority or owner of port, docks, &c.	NC. = Non-Compulsory.
D. = Depth of Water (generally applied to depth on bar unless otherwise stated.)	Pop. = Population.
En. = Entrance.	R. of N. = Rise of Neaps.
Equin. = Equinoctial.	R. of T. = Rise of Tide.
fm = Fathom.	Rys. = Railways which connect with the harbour.
HW. = High Water.	ST. = Spring Tides.
Lat. = Latitude.	THW. = Time of High Water.
Long. = Longitude.	f. & c. = full and change (of moon).
LV. = Largest Vessel or Vessels which have entered the port at any time.	Tr. = Trade of Port.
NT. = Neap Tides.	I. = Imports.
OT. = Ordinary Tides.	E. = Exports.
	W. = Wind, i.e., the prevailing or other winds which affect the harbour.
	W. of E. = Width of Entrance.

ABBREVIATIONS OF NAMES OF RAILWAY COMPANIES.

B. = Blackwall.	L. & N.W. = London & North Western.
B. H. B. = Belfast, Holyhead & Bangor	L. & S.W. = London & South Western.
B. & N. C. = Belfast and Northern Counties.	L.B. & S.C. = London, Brighton & South Coast.
B.C. = Belfast Central.	L.C. & D. = London, Chatham & Dover.
B. J. = Birkenhead Joint.	L. T. & S. = London, Tilbury & South-end.
B. & M. = Brecon & Merthyr.	M.S. & L. = Manchester, Sheffield & Lincolnshire.
Cal. = Caledonian.	M. & C. = Maryport & Carlisle.
C. L. C. = Cheshire Lines Committee.	M. = Midland.
D. & S. = Dingwall & Skye.	M. G. W. = Midland Great Western.
D. & A. = Dublin & Antrim.	N. & B. = Neath & Brecon.
D. W. & W. = Dublin, Wicklow & Wexford.	N. B. = North British.
D. N. & G. = Dundalk, Newry & Greenore.	N. E. = North Eastern.
F. = Furness.	P. & W. = Preston & Wyre.
G. & S. W. = Glasgow & South Western.	R. = Rhymney.
G. E. = Great Eastern.	R. N. & C. = Ryde, Newport & Cowes
G. N. = Great Northern.	S. & W. = Severn & Wye.
G. N. (I.) = Great Northern (Ireland).	S. E. = South Eastern.
G. N. (S.) = Great Northern (Scotland).	T. V. = Taff Vale.
G. W. = Great Western.	W. C. & E. = Waterford, Cleator and Egremont.
H. = Highland.	W. & C. I. = Waterford & Central Ireland.
I. M. = Isle of Man.	W. & L. = Waterford & Limerick.
I. W. = Isle of Wight.	W. & T. = Waterford & Tranmore.
L. & E. = Limerick & Ennis.	W. M. & C. = Wrexham, Mold & Connah's Quay.
L. & F. = Limerick & Foynes.	
L. & Y. = Lancashire & Yorkshire.	

Pilotage.—NOTE.—*The several pilotage rates herein specified are subject to a reduction of one-fourth part, in respect of vessels propelled by steam and vessels towed by steam vessels, provided that if any such vessel shall be propelled by steam, or towed by a steam vessel for a part only of the distance for which any such rate may be payable, the reduction of one-fourth shall be made on such part only of the said rate as shall be proportionate to the distance so propelled or towed.*

Towage.—NOTE.—*The Owners of Tugs at various ports will not be responsible for any damage occurring to vessels while in tow of their steamers.*

ABERAYRON, Cardiganshire, Wales. Bay of Cardigan. Lat. $52^{\circ} 14' N$; long. $4^{\circ} 15' W$. Pop. about 1,200. Auth. Owner, Alban Gwynne, Esq., under Statute 47 Geo. III. THW. f. and c. 7h 25m. D. Dry at LW.; 12ft at HWST. Accn. Harb. of about 5 acres, with stone piers on N. and W. sides, each 396ft long, extending to half-tide mark. W. prev. NW. to NE. Tr.—I. Coal and limestone; E. Oats, pigs, butter, and timber. Harb. is used chiefly by locally owned vessels, drawing from 8ft to 9ft.

Charges.—2d per ton reg. on ships, 1/ per ton on cargo.

Officials.—Harb. Master, J. Davies Compton; Shipping Agent, Evan Loyn.

Hotel.—"Feathers Royal" Hotel, E. Jones.

ABERDEEN, Aberdeenshire. On the Dee. Lat. $57^{\circ} 8' 20'' N$; long. $2^{\circ} 3' 55'' W$. Pop. 120,000. Auth. Harb. Commission, incorporated under Acts of Parliament, 31 and 32 Vict., c. 138; 34 and 35 Vict., c. 141. P. NC. THW. 1 hour f. and c. Sp. rise 13ft; N. rise 10ft; D. on bar $10\frac{1}{2}$ ft. W. prev. are from SW., and most dangerous gales on coast are from SSE. to ESE. Rys. Cal. and G.N. (S.) Tr.—I. Coal, lime, iron, timber, bones, esparto, fibre, slates, &c.; E. Cattle, oats, granite, pit props, sleepers, staves, paper, &c. At HW. of ST. vessels of 21ft dft. enter the harb., and at LW. vessels drawing 8ft enter. The navigation channel, the entrance to the harb. and docks is formed by the N. pier, extending 2,000ft into the German Ocean, and S. breakwater running out about 1,000ft from the shore. W. of E. 600ft. En. to Victoria Dock, one 70ft wide, with a HWD. of $24\frac{1}{2}$ ft.; lock 250ft \times 60ft wide, over which there is a HWD. of 20ft. Accn. :—

	Areas. Acres.	Average Depth.	
		L.W.O.S.T. Ft.	L.W.O.S.T. Ft.
Navigation Channel	40'515	23	$10\frac{1}{2}$ on bar.
Tidal Harbour, 1,720ft. \times 860ft.	30'323	21	14
Albert Basin... 2,680ft. \times 470ft.	24'948	$16\frac{1}{2}$	9
Victoria Dock, 2,020ft. \times 471ft.	21'749	23	18 to 22
Upper Dock ... 820ft. \times 490ft.	7'815	23	18,, 22

125'350

Extensive warehouses and crane accommodation up to 10 tons; shears to lift 50 tons. Particulars of Patent Slipways :—

Name.	Owner.	Length.	Breadth.	H. of T	
				Sp.	N.
Patent Slip	J. Duthie, Sons & Co.....	ft.	ft.	ft.	ft.
Do.	A. Hall & Co.	430	25	21	18
Do.	Do.	380	45	21	18
Do.	Do.	335	42	21	18
Graving Dock.....	.....	524	50	20	17

Charges.—Rates on vessels vary from 2d to 1/3 reg. ton. Lights, flags, or signals 1d reg. ton for all vessels.

Pilotage.—District. The harb., the rivers Dee and Don, the coast between these rivers, and the coast southward from the mouth of the Dee to the extremity of the city's precincts or boundary on the Torry or south side of the Dee. On the Dee being

diverted as authorised by the "Aberdeen Harbour Act, 1868," the limitation shall extend and apply to that river when diverted. **Rates.**

Inwards pilotage rates:—

<i>Sailing Vessels.</i>			£	s.	d.	<i>Steam Vessels.</i>			£	s.	d.
For vessels under 50 tons	....	0	5	0		For vessels under 50 tons	....	0	5	0	
50 and under 75	....	0	7	6		50 and under 75	....	0	7	6	
75 " 100	....	0	10	0		75 " 100	....	0	9	0	
100 " 150	....	0	12	6		100 " 150	....	0	10	0	
150 " 200	....	0	15	0		150 " 200	....	0	12	6	
200 " 250	....	0	17	6		200 " 250	....	0	15	0	
250 " 300	....	1	0	0		250 " 300	....	0	17	6	
300 " 400	....	1	5	0		300 " 400	....	1	0	0	
400 " 500	....	1	10	0		400 " 500	....	1	2	6	
500 " 600	....	1	15	0		500 " 600	....	1	7	6	
600 " 700	....	2	0	0		600 " 700	....	1	10	0	
700 " 800	....	2	5	0		700 " 800	....	1	15	0	
800 " 900	....	2	10	0		800 " 900	....	2	0	0	
900 " 1,000	....	2	15	0		900 " 1,000	....	2	5	0	
1,000 and upwards	....	3	0	0		1,000 and upwards	....	2	10	0	

Outward pilotage rates—one-half the inward rate, but not in any case less than 5/. For any vessel arriving in the lower basin or tidal harbour after the dock gates are shut:—For vessels under 150 tons 3/; for vessels 150 tons and upwards 5/. For each tide's work in the harb. each man in boat 2/. For any vessel beyond a radius of 2 miles from the eastern extremity of the north pier making a signal for a pilot, such sum as the captain pilot may decide, over and above the ordinary rate of pilotage. For any vessel calling in the bay for orders, and not entering the harb., requiring the services of a pilot boat, 20/, which shall include taking off orders. If after the expiry of 12 hours any pilot is detained on board, he shall be paid 2/6 for each tide during which he is detained; and if, after the expiry of such time, the pilot boat is required, 1/ for each man in boat for each passage between the harb. and vessel.

Towage.—Ordinary Sea Towage (by one or more tugs). From the docks or tidal harb. to the bay, or from the bay or outside Abercrombie's jetty, or *vice versa*, with cargo, reg. ton 2½d; with ballast 2d. **Harb. Towage.** Between Abercrombie's jetty and the docks, or from one part of the harb. or docks to another—If 200 tons or under 6/; above 200 and not ex. 500 tons 10/; above 500 tons 15/. In the event of any vessel being towed into the tidal harb. after the dock gates are shut, the tugboat shall, if required, continue the towage of such vessel into the dock the following tide without any additional charge. Minimum towage outwards or inwards 5/.

Officials.—Sec., W. Gordon; Treas. and Coll. of Harb. and Shore dues, P. Riddel; Supt., J. Pirie; Dock and Harb. Master, Capt. W. A. Crombie; Engineer, W. Smith; Gen. Man. of G. N. (S.) Ry., W. Moffatt; Lloyd's Surv., L. G. D. L. Hindmarsh; Coll. of H. M. Cust., G. C. Coates.

Hotels.—"Douglas," "Palace," "Waverley," "and Imperial."

ABERDOUR, Fifeshire. N. side of Firth of Forth, about 8 miles NW. of Edinburgh. Lat. 56° 10' N; long. 3° 20' W. Post-town, Burntisland. Pop. 1,900. Auth. Owner, the Earl of Morton. Agents, Messrs. Dalgleish & Bell, 22, Coates Crescent, Edinburgh. THW. f. and c. 2h 34m. Accn. Wooden pier 250ft long, with jetty carried out to 4ft L.WST.; 16ft water at H.WST.; dry, LW.; Neaps rise 10ft.

Charges.—1d per ton reg. on vessels; 1d per ton on cargo.

Official.—J. Gourley, Acting Harb. Master.

ABERDOVEY, Merionethshire. At the mouth of the Dovey, Bay of Cardigan. Lat. $52^{\circ} 30' N$; long. $4^{\circ} 15' W$. **Pop.** 1,500. **Auth.** Cam. Ry. Co., under lease from the Crown. **THW.** f. and c. 8h om. **D.** on bar 3ft 6in **LWST.**, and 19ft **HWST.**, but is subject to frequent alteration. **Accn.** Pier 367ft carried out to 12ft **LWST.**, and a wharf 365ft long. **W.** prev. NE. to SW., and most dangerous S. to E. **Tr.** Live stock, slates, lead-ore, grain, cement, fish, &c. **LV.** Steamers from the Baltic with cargoes of timber up to 1,100 tons. There is a regular line of steamers carrying passengers and cargo to and from Waterford. Steam crane power. A lifeboat station.

Charges.—Moorage of vessels, $\frac{3}{4}$ d per ton reg.; slates, coal, bricks, iron, 2d per ton; timber, grain, flour, cotton, wool, petroleum, and general merchandise, 3d per ton actual weight.

Towage.—As per arrangement.

Officials.—J. Conacher, Secretary Cam. Ry., Oswestry; G. Owen, C.E., Engineer; John Davies, Harb. Master; J. H. Thomas, Coll. of Customs.

Hotels.—The "Dovey," the "Raven."

ABERFFRAW, Anglesea. A creek of Beaumaris. A bay of refuge in E. or N. winds. **D.** 15fms. **HWST.** Wharfage free. **W.** Jones, Dep. Lloyd's Agent and Harb. Master.

ABERLADY (PEFFER BURN), East Lothian. **THW.** at f. and c. same as Leith. Very small trade.

Officials.—H. Welch, Merchant; W. Wishart, Pilot.

ABERTHAW, Glamorganshire. In the Bristol Channel, between St. Donats and Porthkerry. Lat. $51^{\circ} 22' N$; long. $3^{\circ} 20' W$. No Harb. **Auth.** **THW.** 6h 48m. **Tr.** Aberthaw lime.

ABERBROTHWICK.—See Arbroath.

ABERYSTWITH, Cardiganshire, Wales. At the joint outlets of the rivers Rheidol and Ystwith. Lat. $52^{\circ} 24' 30'' N$; long. $4^{\circ} 5' 30'' W$. **Pop.** 7,600. **Auth.** Corporation of Aberystwith (Act of Parliament, 1874). **P.** NC. **THW.** f. and c. 7h 31m; **Sp.** rise 12ft; **N.** rise 10ft. **D.** on bar uncertain, as bar shifts. **W.** Most dangerous are SW. to W. by N. **Rys.** Cam. and Manch. and Milford. **Tr.**—I. Timber, coal, limestone, bricks, culm, hemp; E. Lead and copper ore, bark, corn, timber. **LV.** 367 reg. ton. The area of the harb. is 20 acres, dry at **LWST.** Quayage space for about 670ft is accessible to vessels of 500 tons. East Quay about 250ft long, with 14ft water **HWST.**; West Quay about 800ft long, with 12ft water **HWST.** There are two powerful capstans with ropes on each side of the harb. entrance, and a 3-ton crane. A lifeboat station.

Charges.—Harb. dues vary from 3d to 6d. Vessels exclusively employed in fishing are exempt from payment of harb. dues.

Pilotage.—District not defined. **Rates.** As per agreement.

Towage.—As per agreement.

Officials.—Town Clerk, A. J. Hughes; Harb. Master, Capt. J. Thomas; Coll. of H.M. Cust., — Hamilton; Lloyd's Agent, Capt. J. Thomas; Lloyd's Surv., H. John.

Hotels.—"Belle Vue," E. Hamer; "Gogerddan Arms," J. Roberts; "Queen's" W. H. Palmer.

ACARSAID, Island of Skye, Hebrides. Lat. $57^{\circ} 10' N$; long. $6^{\circ} 2' W$. Bar dries at **LW.**, $13\frac{1}{2}$ ft at **HWST.**, and 10 ft at **HWNT.** **THW.** 6h. 28m.

ACKERGILL, Caithness, 2 miles N. of Wick. Lat. $58^{\circ} 26' N$; long. $3^{\circ} 8' W$. **Auth.** Owner, G. Duff Dunbar, Esq., of Hempriggs. **THW.** 10h. 58m. **Accn.** A pier of masonry about 100 ft long, used by fishing boats and by steamers loading into boats. **D.** Alongside 15 ft **HWOST.**, and 8 ft at entrance of creek at **LWST.** There are no charges. **W.** prev. S., most dangerous NE. A lifeboat station. The harb. was destroyed by storms some years since. There is a good anchorage in the bay, with S. winds.

Official.—Harb. Master, Wm. Thain.

Hotel.—The nearest is at Wick.

ALDEBOROUGH, Suffolk. Lat. $52^{\circ} 6' N$; long. $1^{\circ} 30' E$. **Pop.** about 2,016. A small decayed port 12 miles from the mouth of the river Alde. There is no harb. authority. **THW.** 10h. 45m. **Sp.** rise 8 ft.; **N.** $6\frac{1}{2}$ ft. **D.** 18 ft **HWST.** and 14 ft **HWNT.** A lifeboat station.

Official.—S. Mills, Principal Coast Officer.

ALDERNEY.—See Channel Islands.

ALDRINGTON.—See Shoreham.

ALLOA, Clackmannanshire. On N. bank of Firth of Forth, 30 miles above Queensferry. Lat. $57^{\circ} 7' N$; long. $3^{\circ} 44' W$. **Pop.** 10,600. **Auth.** Harb. Trustees, under the Alloa Harbour Consolidation Act, 1872, and the Alloa Harbour Act, 1878. **P.** NC. **THW.** f. and c. 3h 18m; **Sp.** rise $17\frac{1}{2}$ ft; **N.** rise 15 ft; **R.** of N. 10 ft. **D.** on bar, **Sp.** 22 ft to 24 ft; **N.** 16 ft. **W.** prev. from NW., not dangerous to shipping in the harb. **Rys.** Cal. and N.B. Tr.—I. Grain, timber, iron, dyewood, &c.; E. Pig-iron, coal, timber, dyewood, &c. **LV.** as follows:—

Date.	Name.	Gross Reg.	Net Reg.	Length.	Breadth.	Depth.
		tons.	tons.	ft. in.	ft. in.	ft. in.
1881	<i>SS. Hector</i>	1,978	1,283	284 4	34 8	37 0
1888	" <i>Ingram</i>	1,748	1,122	257 0	34 6	19 4
1888	" <i>Moss Bros</i>	1,751	1,131	260 0	35 1	17 8

No vessels can enter the harb. at **LW.** of **ST.** The harb. consists of a line of open quays and a wet dock. Dock 630 ft \times 195 ft, has an area of 3 imperial acres, depth **ST.** $17\frac{1}{2}$ ft and **NT.** $13\frac{1}{2}$ ft, and quayage 1,600 ft. There are 400 yds of quayage space in tidal harb., also dry dock 210 ft long, 37 ft wide, $11\frac{1}{2}$ ft deep at **OHW.** Cranes for lifting 20 tons of grain per hour, and two steam cranes for coals.

Charges.—Harb. dues 2d reg. ton. Rates on entering into or using any wet dock $3\frac{1}{2}$ d to 1/ reg. ton. Vessels entering in ballast and loading out $3\frac{1}{2}$ d per ton. Vessels entering to load from another vessel, overside, half dues. Rates on goods vary from 1d to 1/ and $2/6$ per ton for gunpowder. Anchorage rates 1d and 3d reg. ton.

Pilotage.—District. From St. Abb's Head to Alloa, and *vice versa*. **Rates.** Same as Leith.

Towage.—As per Leith tariff.

Officials.—Clerk to Harb. Trust., N. MacWatt; Harb. Master, J. Roy; Graving Dock Mans., A. Thompson & Sons; Coll. of H.M. Cust., Fred. G. Taylor.

Hotel.—"Royal Oak."

ALLONBY, Cumberland, 21 miles SW. from Carlisle. There are a few boats employed in the cod and herring fisheries from this place.

ALNMOUTH, Northumberland. At the mouth of the Alne.

Lat. $55^{\circ} 22' N$; long. $1^{\circ} 33' W$. **Auth.** Owner, the Duke of Northumberland. **THW.** f. and c. 2h 40m. **D.** on bar HWST. about 13ft 6in. **W.** prev. NE. Used by fishing boats and by timber-laden vessels of under 200 tons. No harb. dues; 1/ per vessel, if requiring ballast 6d per vessel. A lifeboat station.

Officials.—Agent, E. G. Wheler, Esq.; Harb. Master, M. H. Simpson; Pilot, G. Richardson.

Hotel.—"Ye Schooner," Messrs. Thorpe & French.

AMBLE.—See Warkworth.

AMLWCH, Anglesea. Lat. $53^{\circ} 25' N$; long. $4^{\circ} 36' W$. **Auth.**

Harb. Trustees, constituted by Statute 31 Geo. III. c. 125. **Rys.** The Anglesea Central Ry. **Accn.** A tidal harb. excavated from solid rock, can contain 30 vessels of about 200 tons each. **THW.** f. and c. 10h 30m; 16ft HWST.; 9ft. HWNT. **W.** prev. N. to W. and SW. Used by coasters of about 200 tons. Berths for about 20 vessels.

Charges.—8d per ton reg. on all vessels loading and unloading, and 6d per ton on all loading or unloading; other vessels 4d per ton, with a rebate of 1d per ton on all vessels leaving the harbour within 30 days after arrival, except in the case of vessels to or from foreign ports.

Official.—Harb. Master, James E. Williamson; Coll. of Port Dues, D. McLean.

ANCHMASTER, Caithness. A small fishery harb., near Clyth.

ANNALONG, co. Down, Ireland. Lat. $54^{\circ} 10' N$; long. $5^{\circ} 50' W$. **Auth.** The Grand Jury of co. Down, under 16 and 17 Vict., c. 136, s. 7. **THW.** 11h 28m. **Accn.** Area of harb. about 1 rood 16 perches. Dries at three-quarters ebb. Used by fishing boats of 9ft dft. and local vessels loading dressed granite. Quay frontage 609ft. **LV.** 111 tons.

Charges.—2d per ton reg., 2/6 each per annum on local vessels, and 6d each visit for vessels not belonging to the port.

ANNAN, Dumfriesshire, Scotland. Lat. $54^{\circ} 57' N$; long. $3^{\circ} 16' W$. Seaport in Solway Firth, at mouth of Annan river. **Pop.** 4,000. **Rys.** Carlisle & Glasgow. **THW.** f. and c. 11h 5m. **Accn.** A good harb., dry at **LW.**, 15ft HWST. No harb. authority.

ANSTRUTHER UNION (Easter and Wester), Fifeshire.

Lat. $56^{\circ} 13' 16'' N$; long. $2^{\circ} 41' 53'' W$. **Auth.** Commissioners of Anstruther Union Harb., by special Act, 23 and 24 Vict., c. 39, s. 5, and Anstruther Harbour Order, 1880. **W.** prev. W., most dangerous SE. to NE. **Ry.** Leven & East Fife Ry. **THW.** 2h 28m. **Accn.** New harb. has an area of 7 acres. **D.** 12ft at HWST. Old harb. has an area of 6½ acres. **E.** pier (masonry), 1,200ft long; dry at **LWST.** **W.** pier is about 480ft long. Quayage about 1,720ft. Used by coasting, steamers and sailing vessels, and by fishing boats. Cranes lift up to 10 tons.

Charges.—Harb. dues from 1½d to 4d per reg. ton.

Pilotage.—For vessels between 20 and 50 tons, 2½d per ton.

Official.—Clerk, H. B. Macintosh; Harb. Master, W. Lyall; Coll. of Dues, D. Pringle.

APPLEDORE, Devonshire. A small port within Barnstaple Bar. Lat. 51° 5' N; long. 4° 4' W. **THW.** 6h 15m. There is a stone pier at Instow, with 13ft to 15ft at **HW.**; dry at **LW.** Also two small dry docks and a patent slipway. (See Barnstaple.)

ARBROATH, Forfarshire. Seaport. Lat. 56° 33' N; long. 2° 35' W. **Pop.** 22,000. **Auth.** Harb. Trust., under Acts 2 Vict., c. 16, and Acts of 1864, and Harb. Order, 1877. **P. NC.** **THW.** f. and c. 1h 35m; Sp. rise 14ft; N. rise 11ft; R. of N. 8ft. **D.** on bar **LW.** of **OST.** 3ft; **NT.** about 6ft. **W.** prev. **W.** are **W.** and **SW.**; most dangerous from **SE.** **Rys.** Cal. and **N.B.** **Tr.**—I. Flax, hemp, jute, coal, iron, bones, guano, linseed-cake, bleaching-powders, salt, lime, timber, grain, slates, &c.; E. Sailcloth, yarns, linen, grain, potatoes, pit timber, stone, &c. **LV.** Steamers with flax of gross ton. of 1,000 to 1,100 tons. Outer harb.—**W.** of **E.** 100ft. Most vessels lie aground on a soft mud bank. Dock 420ft x 260ft; dock area 2½ acres; **W.** of **E.** 40ft. Depth on sill at **HW.** of **Av.ST.** 16ft to 17ft; quayage space of dock 1,350ft, and of basin 1,480ft, in length, and patent slipway 450ft long by 44ft wide **H.** of **T.**, **ST.** 15½ft; **N.** 11ft. A lifeboat station.

Charges.—Harb. dues 1½d to 1/6 + 25% to 50%. Harb. lights and police ¾d reg. ton. Plankage 1/ to 6/6 per vessel.

Pilotage.—**District.** Pilots are licensed for the harb. only. **Rates** per ton.—Coasting sailing vessels, 4d per ton; coasting steamers, 3d per ton; foreign trade sailing vessels, 4½d per ton; foreign steamers, 3d per ton. In addition to these, rates are levied (for providing the pilot master's salary), viz.:—Under 80 tons 1/; 80 and under 100 tons 1/6; 100 and under 120 tons 2/; 120 and under 150 tons 3/; 150 and under 180 tons 4/; 180 and under 200 tons 5/; 200 tons and upwards 7/6.

Towage Rates included in pilotage rates.

Officials.—Clerk to Trust., W. K. Macdonald; Harb. and Pilot Master, Capt. D. Patterson; Coll. of Shore dues, W. Cargill; H. M. Cust., James Cassie.

Hotels.—"White Hart," "Imperial," and "Royal."

ARDBEAR, Galway.—See Clifden.

ARDGLASS, co. Down, Ireland. Lat. 54° 15' 10" N; long. 5° 36' 50" W. **Ry.** Belfast & Co. Down. **THW.** f. and c. 11h om. A seaport, the centre of the fishing stations on the NE. coast of Ireland. **Auth.** Commissioners of Public Works in Ireland, under Acts 39 and 40 Vict., c. 236. **Accn.** Area about 60 acres at **HW.** and 17 acres at **LW.**, with depth from 9ft to 15ft at **LW.** and 15ft additional at **HWST.** **D.** at entrance 15ft to 18ft at **LW.** **W.** prev. **SSW.**, most dangerous **ESE.** to **SE.** Used by coasters of up to 150 tons, carrying coal and country produce, and by about 500 fishing vessels. **LV.** 200 tons. Quayage, north quay 500ft, south quay 1,000ft. There is a small dock adjoining the north quay, where vessels drawing 9ft can enter at **HWST.**

Charges.—6d per ton on cargo vessels, with 1d to 4d per ton wharfage, and an additional 4d per ton for each week, if they remain more than seven days.

Officials.—Sec. to Commissioners of Public Works, Dublin, W. B. Soady, Esq.; Harb. Master, J. A. Mullins; Assist. Harb. Master, J. Cunningham.

Hotel.—"St. Alban's Arms."

ARDRISHAIG, Argyleshire. Lat. $56^{\circ} 0' 45''$ N; long. $5^{\circ} 26' 30''$ W. Entrance to the Crinan Canal. **Auth.** Caledonian Canal Commissioners, by Act of Parliament. **THW.** oh 15m. **D.** in channel leading to canal from 4ft to 16ft, according to state of tide. **D.** at outside quay berths 9ft to 20ft. **D.** in canal and basins, 9ft 6in. Vessels 88ft by 20ft by 9ft can pass locks. **Sp.** rise 11ft; **N.** 9ft. **W.** prev. SE. to SW. Used by coasting vessels and passenger steamers.

Charges.—2d per ton on vessel and 1d to 1/ per ton on goods.

Officials.—Supt., L. J. Groves.

Hotel.—"Royal."

ARDROSSAN, Ayrshire. On the Firth of Clyde. Lat. $55^{\circ} 38' 27''$ N.; long. $4^{\circ} 49' 28''$ W. **Pop.** 4,000. **Auth.** Ardrossan Harbour Company, under Act 1886. **P.** NC. **THW.** 11h 45m; **Sp.** rise 10ft; **N.** rise 8ft. **W.** prev. SW. and are most dangerous. **Rys.** G., S.W. & C. **Tr.**—I. Iron ore, limestone, pig-iron, &c.; E. Coal, pig-iron, &c. **LV.** Vessels drawing 21ft can enter and leave at HWST.; in one or two cases they have left drawing as much as $22\frac{1}{2}$ ft (they could of course have entered as well), and they can enter or leave at LWST, drawing 12ft.; vessels of 1,200 reg. tons may be considered the maximum size that can be accommodated, though there have been one or two in the harb. of 1,700 reg. tons. **Accn.**, an outer breakwater, in the inside of which there is a 20-ton steam crane, and a berth where a vessel 280ft in length could load to 21ft; and a wet dock with an entrance 38ft wide and $18\frac{1}{2}$ ft deep at HWST., having an area of about four acres, and with twelve steam cranes for shipping or discharging coals, pig-iron, ores or goods, as also quayage for the storing of pig-iron, &c. There is also an inner harb. on the inner and E. side of the wet dock. This harb. is closed, being converted into a wet dock of about 9 acres in extent, with 18ft. at **LW.**, which will be opened in 1890 or 1891.

Dry Docks, &c.	Length.	Width.	Depth of OHW.	H. of T.		Owned by.
				Sp.	N.	
	ft.	ft. in.	ft.	ft. in.	ft. in.	
Dry dock	260	38 0	12 to 16	18 6	14 6	{ Ardrossan Shipbuilding Co.
Patent Slipway..	150	38 0		18 6	14 6	

Charges.—Dues on vessels vary, 15 tons and over 3d reg. ton and boat's assistance 14d reg. ton. Dues on goods 2d to 6d, and dues on sundries from 2d to 6d. Cranes to 25 tons.

Towage.—All vessels up to 250 reg. tons, per ton 2d; from 250 to 500, 24d; from 500 upwards 3d reg. ton (chargeable within the W. point of the Horse Isle on the Little Cumbrae). Beyond the limits as per agreement.

Officials.—Man. for the Props., J. Craig; Dock and Harb. Master, Capt. A. Steel; Coll. of Dues, R. Hendrick; Coll. of H. M. Cust., S. Lyall.

Hotels.—"Eglinton Arms" and "Railway."

ARINAGOUR, Island of Coll. Lat. $59^{\circ} 10' N$; long. $6^{\circ} 30' W$.
TWH. 5h 41m. **D.** Dry at **LW.** Sp. rise $12\frac{1}{2}$ ft;
 N. $9\frac{1}{2}$ ft. There is a stone pier and slip at this place, and an anchorage for boats drawing 5 ft or 6 ft. A leading wind is required to enter from the E.

ARKLOW, Co. Wicklow, Ireland. On the Avoca. Lat. $52^{\circ} 53' N$.
 long. $6^{\circ} 10' W$. **Pop.** 5,000. **Ry.** D.W. & W.
THW. f. and c. 8h 0m. **Auth.** Trustees under Act of Parliament 1882. **Accn.** A river 180 ft wide, with **D.** from 6 ft to 10 ft. Tide flows very little on this coast. Crane power to 5 tons. **W.** prev. SW. round by S. to SE. **LV.** 352 tons.

Charges.—On vessels 6d per ton; coal, pyrites, iron ore, and ochre, 3d per ton; timber, 4d per ton; salt, artificial manures and phosphates, 6d per ton.

ARTHURSTOWN, Co. Wexford. A small fishery harbour on the river Suir, opposite Passage East.

AROS, Island of Mull, Argyshire. Lat. $56^{\circ} 40' N$; long. $6^{\circ} 0' W$.
 In the Sound of Mull, 6 miles from Tobermorey. **THW.** 5h 58m. A small fishing station, having a pier for steamers.

ARUNDEL.—See Littlehampton. **THW.** f. and c. 11h 35m.

ASKEATON, Ireland. A small harb. on the river Shannon, near Foynes.

AUBIN, ST.—See Jersey.

AVONMOUTH.—See Bristol.

AXMOUTH, Devonshire. At the mouth of the Axe. Lat. $50^{\circ} 42' N$; long. $3^{\circ} 2' W$. **Auth.** Owner, W. Trelawney Hallett, of Stedcombe House, Axminster. Regulated by Act 11 Geo. IV., 1830. **THW.** f. and c. 6h 33m. **D.** on bar 4 ft **LWST.**, 12 ft to 14 ft **HWST.** Harb. dries at **LW.** **W.** prev. SE. and SW. Quayage about 440 yards.

Charges.—Over 10 tons 2d per ton, and 2d per month for laying up. Rates upon goods as per schedule to Act.

Hotel.—Nearest at Seaton, half a mile distant.

AYMOUTH, Berwickshire, Scotland, 6 miles N. of Berwick. A small harb. for fishing vessels.

AYR, Ayrshire, Seaport. Lat. $55^{\circ} 28' 10'' N$; long. $4^{\circ} 38' 10'' W$.
Pop. 20,821. **Auth.** Harbour Trust. **P.** NC. **THW.** 11h 50m; Sp. rise $8\frac{1}{2}$ ft; N. rise $7\frac{1}{2}$ ft. **D.** on bar 20 ft and 12 ft at entrance. New dock sills **ST.** 22 ft., N. 19 ft. **Ry.** G. & SW. **Tr.**—Large import and export of minerals. The harb. is formed by the river Ayr, which falls into the sea between piers, having the entrance sheltered by a breakwater with an opening 320 ft wide, facing NW by W. The banks of the river are quayed on each side from the bridge seaward, and afford about 1,200 yards of wharfage. There is a wet dock to the N. of the harb., with an area of 8 acres, in which vessels drawing 18 ft to 20 ft can be kept afloat. Good warehouses, steam cranes to 25 tons, and every facility. Special appliances for the shipment of coals. There is also a patent slipway, 800 ft long \times 60 ft wide, and shear legs lifting 50 tons **H.** of **T.** **ST.** 20 ft; N. 17 ft 6 in.

Charges.—Harb. rates, 2d to 4d reg. ton. Anchorage from 1/ for vessels of 20 reg. ton to 10/ for vessels of 500 reg. ton and

upwards. Rates for planks and shutes 6d to 2/. Rates on goods, shipped, unshipped, or transhipped, from 1d to 1/, and 5/ for gunpowder.

Pilotage.—District. Into and out of the harb. of Ayr to a safe distance at sea, say three miles. **Rates.** Vessels engaged in the coasting trade 1d ton. Vessels engaged in the foreign trade 1½d ton.

Towage.—40 reg. tons and upwards into or out of the harb., from or to half a mile beyond the present pierhead of the harb. 1d reg. ton; from one berth in the harb. to another ½d reg. ton.

Officials.—Sec. to Trust., William Pollock; Harb. Master, P. Barr; Coll. of Harb. dues, J. McHutchison; Coll. of H.M. Cust., F. Franklin.

Hotels.—"The Station," "King's Arms," "Queen's," and "Ayr Arms."

BADACRO HARBOUR, Loch Gairloch, Rosshire. Lat. 57° 40' N; long. 5° 42' W. A fish-curing station, having a sheltered little basin, much frequented by small craft.

BAGILT, Flintshire (see Chester). Lat. 53° 17' N; long. 3° 12' W. **Ry.** Chester & Holyhead. **Auth.** Owners, Walkers, Parker & Co., Ltd. **THW.** f. and c. 11h 58m. **W.** prev. SW. and NE. There is about 2ft at **LW.**, and 13ft 3in at **HWST.** Used principally by Messrs. Walker's vessels, steam cranes and goods wharves.

Charges.—Various, from 4d per ton.

BALBRIGGAN, Co. Dublin (see Dublin). Lat. 53° 36' 45" N; long. 6° 10' 40" W. **Ry.** G.N. (I.) **Auth.** Dublin Port and Docks Board, under Act 30, Vict., c. 23, and the Piers and Harbours Confirmation Act, 1867. **THW.** f. and c. 10h 40m. Harbour dries at **LW.** **D.** at **HWST.** 10ft. Used principally by vessels drawing up to 8ft. Quayage 684yds. **Tr.**—Muslin, embroidery, and hosiery, fisheries, &c.

Charges.—6d per ton on vessels. Ballast 1/ per ton, gas light 1d per ton.

Officials.—See Dublin. Harb. Master, R. McCowan.

BALCARRY (Kirkcudbright). A sheltered anchorage and life-boat station on the Solway Firth.

BALLANTRAE, Ayrshire, at the mouth of the Stinchar. Lat. 55° 7' N; long. 5° 2' W. **Pop.** 600. Post-town, Girvan. A small harb., dry at **LW.**, with stone pier, having **D.** of 8ft **HWST.** **THW.** f. and c. 11h 28m.

BALLINA, Co. Mayo, Ireland. Situated at the mouth of the Moy, Killala Bay. Lat. 54° 10' N; long. 9° 15' W; **Pop.**, with its suburb Ardnaree, 5 800. **Auth.** River Moy Commissioners, by Statute, 1860. **THW.** f. and c. 5h 15m. **D.** 5ft **LWST.**, and 16ft **HWST.** **LV.** 350 tons.

Charges.—Harb. dues. On vessels to or from home ports, a sum not exceeding 6d per ton; on vessels to or from foreign ports, a sum not exceeding 8d per ton.

Pilotage.—2/ per foot in dft. for vessels from or for home ports; 3/ per foot in dft. for vessels from or for foreign ports.

Officials.—Sec., R. W. Joynt; Harb. Master, J. Hately.

BALLINACURRA.—See Cork.

BALLINTOY, Co. Antrim, Ireland. Between Coleraine and Rathlin Island. Lat. $55^{\circ} 7' N$; long. $6^{\circ} 30' W$. Nearest Railway Station, Ballycastle. **Auth.** The Eglinton Chemical Co., Ltd., of Ballintoy. **THW.** f. and c. 6h 28m. **Accn.** Area about 2,380 sq yds. Quayage 300ft frontage. **LV.** Steam lighters of 100 tons. Don Bar $6\frac{1}{2}$ ft LWST. and $10\frac{1}{2}$ ft HWST. Crane power to 2 tons.

Charges.—6d per ton on vessels.

Officials.—Gen. Man. and Sec., W. A. Donald; Harb. Master, John MacHendry.

Hotels.—"Boyd Arms," Ballycastle; "Commercial," Bushmills.

BALLYCASTLE, Co. Antrim, Ireland, near the Fair Head. Lat. $55^{\circ} 16' N$; long. $6^{\circ} 32' W$. **Pop.** 1,600. **Auth.** Owner, Lady Boyd. **THW.** f. and c. 6h 42m. Dock choked up with sand. Vessels have to discharge into boats, not being able to get alongside the pier, which is in a dilapidated condition. **W.** Sheltered from NE. and NW. There are dangerous currents between Rathlin Island and the mainland. **Tr.**—Coasting vessels bringing coals, slate, timber, &c. No harb. dues.

Official.—Agent to Owner, J. B. Johnstone.

BALLYCOTTON, Co. Cork, Ireland. Lat. $51^{\circ} 49' N$; long. $7^{\circ} 59' W$. **Pop.** 350. **THW.** f. and c. 5h 38m. A small pier. Harb. dry at LW., affording protection to fishing vessels and coasters.

BALLYCROVANE, Harb. in Kenmare Bay, Co. Kerry, Ireland. An anchorage in about 4 fms.

BALLYSHANNON, Co. Donegal, Ireland. Lat. $54^{\circ} 31' N$; long. $8^{\circ} 2' W$. At the mouth of the Erne. **THW.** 5h 18m. **D.** on bar 3ft LWST., and 6ft LWNT.; 13ft HWST., and 10ft HWNT. Channel is about 110 to 150 yds wide, with depth of about 12ft, except near the Bar; and 18 to 20ft at wharves. **LW.** **Auth.** Harb. Trust., under Act, 1886. **En.** occasionally difficult, but undergoing improvements.

Charges.—On vessels, 2d per ton reg.; on cargo, 3d to 4d per ton.

Pilotage.—Coasters 2/6 in, 2/0 out, per foot dft.; foreign 3/6 in, 3/ out, per foot dft.

Official.—Sec. to Harb. Trust., Edward Lynch.

Hotels.—"The Imperial," "Commercial," and "Railway."

BALLYSODARE, Co. Sligo, Ireland. Lat. $54^{\circ} 18' N$; long. $8^{\circ} 25' W$. A small port on the coast of Connaught, with secure anchorage for two or three small vessels in Porthcurry Pool in 13ft LW. **THW.** f. and c. 6h 35m. No harb. authority.

BALMERINO, Fifeshire. River Tay. Lat. $56^{\circ} 25' N$; long. $3^{\circ} 2' W$. **Pop.** 800. **Auth.** Owner, E. A. Stuart, Kinfauns Castle. **Rys.** N.B. **THW.** f. and c. 2h 44m. There is a stone pier, 120ft long, connected with a timber jetty, with about 10ft at HWST. alongside. **D.** Dry at LW.

BALTIMORE, Co. Cork, Ireland. Lat. $51^{\circ} 27' N$; long. $9^{\circ} 16' W$; about 5m NE. from Cape Clear. **Pop.** 150. **THW.** f. and c. 4h 23m. An anchorage for vessels drawing up to 18ft. In the reign of Charles I., 1631, this town

was plundered by Algerine pirates, who carried above 200 of the inhabitants into slavery. No harb. dues.

Official.—John Brown, Harb. Constable.

BAMBOROUGH, Northumberland, 15m SE. from Berwick-on-Tweed. **Pop.** 4,000. The keep of the castle—said to have been built by Ina, King of Northumbria, in 548—is used as a refuge for shipwrecked sailors.

BANDON QUAY (see Kinsale), Co. Cork, Ireland. Lat. $51^{\circ} 44' N$; long $8^{\circ} 43' W$. Situated at the mouth of the Bandon River. **Ry.** Cork, Bandon & Kinsale. **Auth.** Kinsale Harb. Commissioners, by Kinsale Harb. Orders, 1870 and 1874. **THW.** f. and c. 5h 18m. **D.** alongside quay $8\frac{1}{2}$ ft **HWST.**, on bar 13ft **LWST.**; **Sp.** rise 12ft, and **N.** 10ft. Vessels have often to wait many days to discharge and load. **Tr.**—I. Coal, corn, timber, and salt; E. Corn, timber, and pitwood. **W.** prev. **SW.** **LV.** 200 tons.

Charges.—On vessels 1d per ton reg.

Officials.—Sec., M. Hegarty; Harb. Master, E. Barrett.

Hotel.—"Barrett's Restaurant."

BANFF, Banffshire. Lat. $57^{\circ} 40' N$; long. $2^{\circ} 31' W$. **Pop.** 4,200. **Auth.** Harb. Trust., under Act of Parliament, 3 and 4 Vict., c. 114. **P. NC.** **THW.** f. and c. 6h 28m; **Sp.** rise $10\frac{1}{2}$ ft; **N.** 8ft; **R.** of **N.** $5\frac{1}{2}$ ft. **W.** prev. **W.**, most dangerous from NW. to NE. **Ry.** G.N. (S.) **Tr.**—I. Coal, lime, timber, iron, stones, and general goods; E. Timber, corn, &c. The outer entrance has a width of 45ft. **LV.** It is supposed the **LV.** that ever entered at any time of tide was a light steamer of about 500 tons gross reg. No vessels can enter at **LW.** of **ST.** except at times a few boats. The harb. consists of an inner and outer basin; the area within the walls is about 4 acres. There is entire safety in the inner basin, 300ft \times 230 ft, with 1,600ft of quaysage; but in **LT.** loaded vessels can only enter outer basin, 290ft \times 190ft, where they discharge part cargo. At **NT.** vessels drawing not more than $10\frac{1}{2}$ ft can enter outer basin, and at **ST.** $13\frac{1}{2}$ ft, or about, according to direction of **W.** and state of sand; and vessels can enter inner basin at **NT.**, drawing $8\frac{1}{2}$ ft, and at **ST.** $10\frac{1}{2}$ ft, varying as before mentioned. Morton's Patent Slipway is 80ft long \times 27ft wide. **H. of T. ST.** 12ft to 16ft; **N.** 10ft to 13ft. Crane, and other accommodation.

Charges.—Harb. dues inwards and outwards 1d reg. ton. Water and pier lights about 1d reg. ton. Berthing dues 1/ to 2/6. Plankage 6d for each plank.

Pilotage.—District not defined. **Rates.** Inwards or outwards 2d ton.

Towage.—Boat with kedge and warp 5/ per vessel.

Officials.—Clerk to Harb. Trust., J. Smith; Harb. and Shore Master, R. Sheriff; Berthing Master, Capt. Cook; Principal Coast Officer of H.M. Cust., D. Clark.

BANGOR, Carnarvonshire. Lat. $53^{\circ} 13' N$; long. $4^{\circ} 8' W$. **Pop.** about 7,000. **Ry.** Caernarvon & Holyhead. **THW.** f. and c. 9h 38m. **D.** 17ft **HWST.**, and 116 **HWNT.** **Accn.** Tidal basin 320ft long \times 50ft, with 690ft of quaysage. There is about 500ft quaysage outside tidal basin. **Tr.**—Exporting slates.

Charges.—Under 50 tons burden or dead weight to 100 tons and upwards, 2/ per vessel.

Official.—E. A. Young, Harb. Master.

Hotels.—"Albion," R. G. Pritchard; "Castle," John Denman.

BANGOR, Co. Down, Ireland. Lat. $54^{\circ} 39' N$; long. $5^{\circ} 40' W$.
Pop. 2,500. **Ry.** B.H.B. **Auth.** Owner, R. E. Ward, Bangor Castle, Co. Down. **THW.** f. and c. 11h 8m. There is no bar. **Accn.** consists of 7 berths for vessels up to 140 tons besides berths for smaller vessels. Harb. dries at **LW.** D. 17ft HWST. There is a pier and landing stage for steamers plying to Belfast.

Charges.—2d per ton on vessels; 1/ per standard on deals, 3d per ton on potatoes, 1½d on coals and bricks; 4d per M on slates; 1½d per ton on iron; 3½d on lead and all other ores; 1d on rock salt; 1½d on slates.

Official.—Hon. Somerset Ward, Bangor Estate Office, Downpatrick; J. Tregaskis, Harb. Master.

BANNOW, Co. Wexford, near the submerged town of Bannow. There is a little shipping business here in connection with the Land Reclamation works, but no harbour. **D.** 15ft HWST., 10ft HWNT.

BANTRY, Co. Cork, Ireland. Lat. $50^{\circ} 40' N$; long. $9^{\circ} 45' W$.
E. coast of Bantry Bay. **Ry.** West Cork Ry.
THW. f. and c. 3h 47m. There is no harb. authority. Bantry Bay, 25m long \times 6 to 8 broad, includes Whiddy and Glengariff Harb., and affords security and anchorage to the largest vessels. Other Harbs. in this bay—Adrigle, Castletown, Berehaven, and Kitchen Cove—offer suitable accommodation for smaller vessels.

Official.—E. Harrington, Harb. Constable.

BARKING, Essex. On a creek of the Rother, River Thames.
Ry. L.T. & S. Small trade in timber and fish.

BARKS-UNDER-CLIFF.—See Laugharne.

BARLOCHAN.—See Dumfries and Palnackie.

BARMOUTH, Merionethshire. Lat. $52^{\circ} 40' N$; long. $4^{\circ} 5' W$;
Ry. Cam. **Pop.** 2,000. **Auth.** Harb. Board,
 under Statute Geo. III., 1795. A small tidal harb., with about 410ft of quayage. **D.** 13ft HWST. Dry at **LW.** **THW.** f. and c. 7h 41m.

Official.—John Lewis, Harb. Master.

BARNPOOL, Plymouth. Berthage for ships of the Royal Navy.

BARNSTAPLE, Devonshire. On the river Taw, 34m NW of Exeter. Lat. $51^{\circ} 7' N$; long. $4^{\circ} 4' W$.
Pop. 12,400. **Auth.** Town Council of Barnstaple, and Rolle's Hon. Mark Rolle. **P.** NC. **THW.** 6h 28m; Sp. rise 10½ft, rise 5ft. **D.** on bar generally 4ft LWST. in Harb., ST. 10/14ft; NT. 5ft. **W.** prev. SW. to NW., chiefly the latter. **f.** G.W. (Devon and Som.) and L. & S.W. **Tr.**—L. Coal, man oil-cake, grain, timber, &c.; E. Clay, timber, pitwood, &c.

LV. 130 tons burthen (coaster). **Accn.** Barnstaple Quay, depth 10ft Av. ST.; area of great quay, for vessels, below bridge 1,800ft, and above bridge, for barges and boats 2,000ft; dry docks at Appledore, the New Quay Dock, and Richmond Dock. A good patent slipway, and shipbuilding yard.

Charges.—Harb. dues 4d per vessel. Light dues $\frac{1}{4}$ d reg. ton.

Pilotage.—District not defined. **Rates.** By agreement.

Towage.—4d reg. ton.

Officials.—Town Clerk, J. Bosson; Agent to Rolle Estate, R. H. Lipscombe, Tonington, N. Devon; Harb. Master, Capt. Richard Bament; Coll. of H.M. Cust., J. Barry.

Hotels.—"Royal" and "Fortescue," N. Saxon; "Golden Lion," Mrs. A. Marsh; "Trevelyan" (Temperance), Mrs. J. S. Keirle; "King's Arms," W. Tarr.

BARROW-IN-FURNESS, Lancashire. On the Walney Channel, $3\frac{1}{2}$ m above Piel Harb. Lat. $54^{\circ} 3' 30''$ N; long. $3^{\circ} 10'$ W. **Pop.** 47,100. **Auth.** Furness Ry. Co., under Furness Co.'s Acts of Parliament. **P. C.** THW. Duddon Bar, f. and c. 10h 54m; Sp. rise 28 ft; R. of N. 14 ft. D. on bar OST. 30ft; NT. 23ft. **W.** prev. W. and SW. **Ry.** F. **Tr.**—I. General merchandise, grain, timber, pig-iron, &c.; E. Iron and general merchandise. **LV.** at any time of tide *City of Rome*, 8,450 tons, and *LWST. Manx-Queen*, 567 tons. Docks:—

	Area.	Depth on Sill.		Length.	W. of E.
		HWOSt.	Neaps.		
	Acres.	ft.	ft.	ft.	ft.
Devonshire	30	2 ^c	18	500	60
Buccleuch	31	—	—	—	80
Ramsden	65	31 $\frac{1}{2}$	24	900	100

Ramsden Dock lock has an area of 2 acres, the half-tide basin 8 acres, with entrances 100ft wide in each case. Excellent warehouse and every **Accn.** for a large trade. Foreign animals wharf, chill rooms, and quayspace about 5m in length. Cranes from $1\frac{1}{2}$ to 100 tons. Parts of graving docks, &c. :—

Name.	Extreme Length.	W. of E.	Depth at OHW.	H. of T.	
				Sp.	N.
	ft.	ft.	ft.	ft.	ft.
Graving Dock	500	60	20	25	14 $\frac{1}{2}$
Depositing Dock	240	40	Any dft.	—	—
Ashburner's Slip	250	27	—	15	5
Furness S. Company's Slip	200	20	—	14	4

The Depositing Dock is capable of lifting ships of 3,500 tons weight in about 30 minutes, and is provided with two gridirons for the depositing of vessels. By means of this dock a ship can be raised, cleaned, painted, and lowered again into the water in 24 hours.

Charges.—Dock dues from 3d to 1/ reg. ton. Harb. dues (payable by vessels entering within the limits of the harb. but not going into dock) from 1½d to 1/ reg. ton. For every vessel entering or leaving the harb. or docks without delivering or loading a cargo, half of the above rates are charged. Tolls on passengers 1d each. Dock rates on goods and cattle 1½d to 1/. Rates for loading cargoes 2d to 1/6. Rates for discharging cargoes 6d to 1/6. Wharfage on quays.

Pilotage.—District. From sea (that is, Morecambe Bay Lightship) into and out of the harb. and along the coast from Formby Point to Haverigg Point of Duddon. Rates on vessels employed in the oversea trade:—

	Under 200 tons reg.	200 tons and under 600 tons reg.	600 tons and under 1,000 tons reg.	1,000 tons reg. and upwards.
From within lines from Morecambe Bay Lightship to Formby Point and Haverigg Point respectively to the Docks at Barrow, and <i>vice versa</i>	foot. s. d.	foot. s. d.	foot. s. d.	foot. s. d.
From within lines from Morecambe Bay Lightship to Formby Point and Haverigg Point respectively to the Anchorage at Piel or the Wyre Lighthouse, and <i>vice versa</i>	6 0	8 0	9 0	10 0
From within a line with Black Comb, bearing NNE., and outside Hilpsford Buoy to the Docks at Barrow, and <i>vice versa</i>	4 6	6 0	7 0	8 0
From within a line with Black Comb, bearing NNE., and outside Hilpsford Buoy to the Anchorage at Piel or the Wyre Lighthouse, and <i>vice versa</i>	4 0	5 0	6 0	7 0
From Hilpsford Buoy, or within the same, to the Docks at Barrow, and <i>vice versa</i>	2 6	3 0	4 0	5 0
From Hilpsford Buoy, or within the same, to the Anchorage at Piel, and <i>vice versa</i>	2 6	3 0	4 0	5 0
From within Piel Anchorage to the Docks at Barrow, and <i>vice versa</i> ..	1 0	1 6	2 0	2 6
From Wyre Lighthouse to the Docks at Barrow, and <i>vice versa</i>	1 6	2 0	2 6	3 0
From Wyre Lighthouse to the Anchorage at Piel, and <i>vice versa</i> ..	4 0	5 0	6 0	7 0
From north of a line from Morecambe Bay Lightship and Walney Light, and inside the NNE. line, to Wyre Lighthouse, and <i>vice versa</i> ..	2 6	3 0	4 0	5 0
From south of a line from Morecambe Bay Lightship and Walney Light, and inside the NNE. line, to Wyre Lighthouse, and <i>vice versa</i> ..	2 0	2 6	3 0	4 0

On vessels employed in the coasting trade one-half of these rates. Additional rate, for intermediate portions of a foot dft., as follows, viz.:—For 3 inches and under, no addition; for more than 3 inches and under 9 inches, the medium between the two rates; for 9 inches and upwards, the rate for the next foot. For transporting ships from one berth to another within the harb. 10/6. If a master retain or employ a pilot whilst at anchor, the lay days to be 7/6 per day. All coasting steam vessels making more than one voyage per

week pay half these rates.

Towage.—Between—		Reg. Ton.	Minimum.
		d.	£
Barrow Docks and Pile Light	... ..	1	$\frac{1}{2}$
" " Piel	... ..	2	1
" " Hawse Point	... ..	2½	2
" " Hilpsford Buoy	... ..	3	3
" " Lightship	... ..	5	7
Piel and Hawse Point	... ..	1	1
" Hilpsford Buoy	... ..	2	2
" Lightship	... ..	4	6

For use of tug for vessels going into or coming out of graving dock 1d ton, minimum £1 (including towage both ways, and the extra dock towage required). To moor or unmoor vessel, &c., £2 for the first hour, and £1 for each additional hour (or part of hour; minimum £2. For towing from tidal basin to channel or *vice versa* ½d ton. For towing coasters not exceeding 150 tons from channel to berth, or *vice versa*, ½d ton. Between basin or lock and Ramsden Dock ½d ton each tow; between basin or lock and Buccleuch or Devonshire dock ½d ton each tow. From one berth to another in docks ½d ton each tow. For use of dock tug for swinging £1 for the first hour and 10/ for each additional hour or part of an hour; minimum £1. For use of outside tug for swinging £2 for the first hour, and £1 for each additional hour or part of hour; minimum £2. Steamers without steam charged on the gross tonnage; steamers under steam charged half the above tonnage rates on net tonnage. The use of the tug is optional. The above charges do not apply to salvage services. For use of tow-ropes: dock tug 5/ each tow; other tugs 10/ each tow in dock; docks to Piel 10/; docks to Hilpsford £1; docks to lightship £2. Vessels under 300 tons reg. half the above charges. Any towing services not comprised in the above must be specially arranged for with the harb. master. Masters of vessels in dock requiring tugs should make application at the harb. office, and, if outward-bound, should prepay. Vessels take their turn for tugs in the order in which they book, except in special cases.

Officials.—Sec. and Man., H. Cook; Harb. Master, Captain Barnett, R.N.; Coll. of H.M. Cust., J. R. Buckley.

Hotels.—"Duke of Edinburgh," Josiah Twiss; "Imperial," Edwin Hinks.

BARRY ISLAND, Port of Cardiff, Glamorgan, Wales. Lat. 51° 22' N; long. 3° 16' W. **Rys.** Barry Dock Ry., 27½ miles, connecting the Dock with the colliery districts and with the G.W., T.V., and other systems. THW, f & c 6 50. **Auth.** Barry Dock and Railways Company, under Barry Docks Railways Act, 1884. **Accn.** Tidal dock, 73 acres; tidal basin, 7 acres. Length of quayside in dock, 10,500ft; ditto in basin, 2,040ft. **D.** at HWST. 37ft 7in, LWST. 1ft 6in, HWNT. 29ft 3in, LWNT. 9ft 7in. The available depth of water is some 3ft more than given above, but the sills being curved, the above will be taken as the working depths for flat-floored vessels. Accommodation for largest vessels afloat. Dimensions of docks:—Length 3,400ft, width 1,100ft; basin, length 600ft, width 500ft; timber pond, 24 acres. Dry docks of the most modern construction, one being 724ft in length, divided into two sections. Hydraulic cranes of most modern construction; 11 high level coal staiths, also low level staiths, and movable staiths and cranes.

Dock Charges. Same as Cardiff and Penarth, but no corporation, town, or harbour dues.

Pilotage. Optional.

Towage. Reasonable.

Officials. Secretary, G. C. Downing; Manager, R. Evans; Dock Master, R. Davies; Coll. of Customs, Cardiff Collector.

Hotels. Island Hotel, Barry Island; Wemoe Arms Hotel, Cadoxton; Royal Hotel, Cadoxton; Ship Hotel, Barry.

BARTON-ON-HUMBER, Lincolnshire. Lat. $53^{\circ} 41' N$; long. $0^{\circ} 26' W$. Rys. M.S. & L.

A small port on the S. side of the Humber, below Hull.

BEADNELL, Northumberland. Lat. $55^{\circ} 34' N$; long. $1^{\circ} 37' W$. A creek under port of Berwick. D. HWST. 6ft.

Official.—E. Forrester, Harb. Master.

BEAULEY. A creek under port of Inverness. Pop. 900. D. HWST. 13ft; HWNT. 8ft.

Official.—J. Mackenzie, Harb. Master.

BEAUMARIS, Anglesea, Wales. On the Menai Straits. Lat. $53^{\circ} 18' N$; long. $4^{\circ} 2' W$. Pop. 3,000. Auth.

The Corporation, under Charter of Edward I. P. NC. THW. f. and c. 10h 28m; Sp. rise $22\frac{1}{2}$ ft; N. rise $15\frac{1}{2}$ ft. D. at the quay, ST. 16ft; N. 9ft. Ry. L. & N.W. Tr.—I. Timber and grain; E. Slates and slabs. Accn. natural harb.; no warehouse accommodation.

Charges.—Harb. dues, for every smack under 20 reg. ton. 1/; above 20 and under 40, 1/6; 40 tons and upwards 2/6. For every vessel or schooner with two masts under 40 tons, 2/; 40 tons and upwards, 3/. Every vessel not under British flag 6/8.

Pilotage.—District. From Port Dinorwic or Moel-y-Don through the Swellies to a line drawn from Great Orme Head to Point Linas and *vice versa*. N.B.—No master of a vessel is compelled to take a pilot within this district, except on coming in or going out of port. **Rates** :—

	For Vessels drawing									
	1ft and under.	12ft.	13ft.	14ft.	15ft.	16ft.	17ft.	18ft.	19ft.	20ft
From outside, the Sound into the Bay, or into Conway....	2/6	3/	3/6	4/	4/6	5/	5/6	6/	6/6	7/
From inside the Sound into the Bay.....	2/	2/6	3/	3/6	4/	4/6	5/	5/6	6/	6/6
For the pilotage outwards ...	2/	2/6	3/	3/6	4/	4/6	5/	5/6	6/	6/6

From Cadnant to Port Dinorwic, and *vice versa*: Vessels drawing 7ft water and under 4/; more than 7ft water 9d foot. From Cadnant to Caernarvon (no Caernarvon pilot offering): Vessels drawing 7ft water and under 6/; more than 7ft water 1/ ft. Pilots taking vessels into Conway are entitled, in addition to their pilotage, to 7/6 for returning to Beaumaris. Should the pilot be landed at Great Orme Head, extra 42/; if taken (out of the limits of his licence) to Chester or Liverpool 63/; in case the pilot should happen to have charge of the vessel to either of the said places 105/; 7/6 per day allowed pilot for every day detained on board.

Towage.—As per agreement.

Officials.—Town Clerk, J. R. Roberts; Harb. Master, F. K. Southwell; Lessee of Harb. Dues, J. Percy.

Hotels.—"Williams Bulkeley Arms," "Liverpool Arms,"

BECCLES, Suffolk. Lat. $52^{\circ} 27' N$; long. $1^{\circ} 35' E$; situated on the river Waveney, 13m SE. of Yarmouth. Ry. G.E. Auth. Owners, the Town Council of Beccles. The harb., area 3,200 sq yds, is a small cut in the river, into which coasters and small craft enter. D. at LW. 5ft to 6ft.

Official.—Coll., J. B. Sprunt.

BELFAST, Antrim. At the head of Belfast Lough, and at the outlet of the river Lagan. Lat. $54^{\circ} 42' N$; long. $5^{\circ} 55' W$. Pop. 250,000. Auth. Harbour Commissioners, under Acts from 1847 to 1883. P. C. THW. f. and c. 10h 43m; Sp. rise $9\frac{1}{2}$ ft; N. rise 8ft. W. prev. for nine months of the year are from S. veering W. to NW., and for three months in the spring from NE. to SE. The harb. is at all times safe and easily accessible. Rys. B. & N.C.; B. & Co. Down; B. H. & B. G.N. (I.) Tr.—I. Coal, cotton, flax goods, grain, flour, timber, iron, provisions, drugs, &c.; E. Linen, goods, iron ore, hides, rock salt, &c. LV. which have entered at any time of tide were, until lately, those engaged in the timber trade from N. American ports, and the ship *Queen of the West*, of 1,432 reg. ton., was the largest. Since the year 1870 the largest vessels have been those in the grain and flour trade, and were chiefly from American ports. The most recent and marked change in the vessels in this, as well as in other trades, has been that from sailing vessels of 1,200 to 1,800 tons to steamers of similar tonnage. The largest vessels which enter at L.W. of ST. are steamers about 400 to 600 tons, employed in the general coasting trade, and also in the trade with Continental ports, but vessels of 2,500 tons enter at HW. Accn. The harb. for ships and boats is $8\frac{1}{2}$ m long. The area of the docks and basin is about 101 acres. The depth in the river is 16ft at ordinary or average LT. Dufferin Dock, a floating dock with one pair of gates (no lock) is 630ft long \times 225ft wide, has a water area of $3\frac{1}{2}$ acres and 1,645ft of quayside length. Average depth of water 23ft; depth on sill of entrance 14ft at ordinary or average LT. Spencer Dock is a tidal dock 600ft long \times 550ft wide; water area $7\frac{1}{2}$ acres, and quayside of 1,900 lin. ft. Average depth of water 16ft at ordinary or average LT. Entrance (which has neither sill, lock, nor gates) 265ft long \times 8cft wide. The Dufferin Dock opens from this dock, and on the river side of the Spencer Dock is formed the Milewater Basin, comprising an area of 5 acres of water, and a quayside of 600ft. The Abercorn Basin is a rectangular basin, having three sides, 725ft long \times 635ft depth broad; water area $12\frac{1}{2}$ acres; quayside of 1,370 lin. ft. Average 15ft at LT. Albert Quay is a river quay, 2,100ft long, having 12ft of water at ordinary or average LT. Queen's Quay is a river quay 2,100ft long. Donegal Quay is a river quay 3,300ft long. Lands reclaimed from the sea are in extent, on the Co. Down side of the river, about 165 acres, and on the Co. Antrim side about 100 acres. Total quayside space is about 16,738 lin. ft. The river space, which is practically a dock, is about 60 acres. Graving docks, &c. :—

Name.	Length.	Width.	Depth on Sill OHW.
	ft.	ft.	ft. in.
Graving Dock, No. 1.	252 $\frac{1}{2}$	30	8 3
Do. " 2.	299	36	10 0
Hamilton Graving Dock	470	60	15 7
Belfast Patent Slip	550	78	—
Alexandra Graving Dock	800	80	25 —

Excellent warehouse accommodation in close proximity to quays. Cranes—two 1 ton, ten 2 tons, one 25 tons, one 50 tons, one 70 tons. Steam derrick, 100 tons, in course of construction.

Charges.—Tonnage dues 1d to 4d reg. ton. Quayage 3½d reg. ton. on vessels. Lighters 5/ each. Ballast 1/ per ton. Plankage 1/6 for each plank. Portorage. Crange as per schedule.

Pilotage.—District. Larne Harbour, County Antrim, to Ballyhalbert Bay, County Down. Rates:—

HARBOUR PILOTAGE.

Registered Tonnage.	On Vessels not Steaming.		On Vessels being Steamed.		On Vessels towed by Steamers.	
	If boarded seaward of line from Seapark House to Craigavon House.	If boarded at entrance of Victoria Channel or at Holywood Lighthouse.	If boarded seaward of line from Seapark House to Craigavon House.	If boarded at entrance of Victoria Channel or at Holywood Lighthouse.	If boarded seaward of line from Seapark House to Craigavon House.	If boarded at entrance of Victoria Channel or at Holywood Lighthouse.
30 and under 40	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
40 " 50	0 0 0	0 3 6	0 3 3	0 2 3	0 3 9	0 2 6
50 " 60	0 0 0	0 4 6	0 4 3	0 3 6	0 4 0	0 3 6
60 " 70	0 0 0	0 5 6	0 5 0	0 4 6	0 5 0	0 4 0
70 " 80	0 10 0	0 6 6	0 6 3	0 5 6	0 6 0	0 5 0
80 " 90	0 11 0	0 7 6	0 7 3	0 6 6	0 7 0	0 6 0
90 " 100	0 12 0	0 8 6	0 8 0	0 7 6	0 8 0	0 7 0
100 " 110	0 13 0	0 9 6	0 9 6	0 8 6	0 9 0	0 8 0
110 " 120	0 14 0	0 10 6	0 10 3	0 9 6	0 10 0	0 9 0
120 " 130	0 15 0	0 11 6	0 11 0	0 10 6	0 11 0	0 10 0
130 " 140	0 16 0	0 12 6	0 12 3	0 11 6	0 12 0	0 11 0
140 " 150	0 17 0	0 13 6	0 13 0	0 12 6	0 13 0	0 12 0
150 " 160	0 18 0	0 14 6	0 14 0	0 13 6	0 14 0	0 13 0
160 " 175	1 1 3	0 15 0	0 15 0	0 14 6	0 15 0	0 14 0
175 " 200	1 6 3	0 16 0	0 16 0	0 15 6	0 16 0	0 15 0
200 " 225	1 8 0	0 17 0	0 17 0	0 16 6	0 17 0	0 16 0
225 " 250	1 9 3	0 18 0	0 18 0	0 17 6	0 18 0	0 17 0
250 " 275	1 10 0	0 19 0	0 19 0	0 18 6	0 19 0	0 18 0
275 " 300	1 12 6	0 20 0	0 20 0	0 19 6	0 20 0	0 19 0
300 " 325	1 15 0	0 21 0	0 21 0	0 20 6	0 21 0	0 20 0
325 " 350	1 17 0	0 22 0	0 22 0	0 21 6	0 22 0	0 21 0
350 " 375	1 18 9	0 23 0	0 23 0	0 22 6	0 23 0	0 22 0
375 " 400	2 0 6	0 24 0	0 24 0	0 23 6	0 24 0	0 23 0
400 " 450	2 2 6	0 25 0	0 25 0	0 24 6	0 25 0	0 24 0
450 " 500	2 5 0	0 26 0	0 26 0	0 25 6	0 26 0	0 25 0
500 " 600	2 10 0	0 27 0	0 27 0	0 26 6	0 27 0	0 26 0
600 " 700	2 15 0	0 28 0	0 28 0	0 27 6	0 28 0	0 27 0
700 " 800	3 0 0	0 29 0	0 29 0	0 28 6	0 29 0	0 28 0
800 " 900	3 5 0	0 30 0	0 30 0	0 29 6	0 30 0	0 29 0
900 " 1000	3 10 0	0 31 0	0 31 0	0 30 6	0 31 0	0 30 0
1000 " 1100	3 15 0	0 32 0	0 32 0	0 31 6	0 32 0	0 31 0
1100 " 1200	4 0 0	0 33 0	0 33 0	0 32 6	0 33 0	0 32 0
Every additional 100 tons	0 5 0	0 3 6	0 3 6	0 2 3	0 3 9	0

HARBOUR PILOTAGE.

Registered Tonnage.	OUTWARD.			
	On Vessels not Steamers.	On Vessels being Steamers.	On Vessels towed by Steamers.	On Vessels in Ballast only. (Optional.)
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
30 and under 40	0 5 0	0 3 3	0 3 9	0 3 3
40 " 50	0 6 3	0 4 3	0 4 9	0 4 3
50 " 60	0 7 6	0 5 0	0 5 9	0 5 0
60 " 70	0 8 9	0 6 0	0 6 6	0 6 0
70 " 80	0 10 0	0 6 6	0 7 6	0 6 0
80 " 90	0 11 3	0 7 3	0 8 6	0 6 0
90 " 100	0 12 6	0 8 6	0 9 6	0 7 0
100 " 110	0 13 9	0 9 6	0 10 3	0 7 0
110 " 120	0 15 6	0 10 3	0 11 9	0 7 0
120 " 130	0 17 6	0 11 6	0 13 3	0 7 0
130 " 140	0 19 3	0 13 0	0 14 6	0 8 0
140 " 150	1 1 3	0 14 0	0 16 0	0 8 0
150 " 160	1 2 6	0 15 0	0 17 0	0 8 0
160 " 175	1 3 9	0 15 9	0 17 9	0 9 6
175 " 200	1 6 3	0 18 0	0 19 9	0 9 6
200 " 225	1 8 0	0 18 6	1 1 0	0 11 6
225 " 250	1 9 3	0 19 6	1 2 0	0 12 0
250 " 275	1 10 6	1 0 9	1 3 0	0 12 0
275 " 300	1 12 6	1 1 3	1 4 6	0 13 0
300 " 325	1 15 0	1 3 6	1 6 3	0 13 0
325 " 350	1 17 0	1 4 3	1 7 9	0 14 0
350 " 375	1 18 9	1 6 3	1 9 0	0 15 6
375 " 400	2 0 6	1 7 0	1 10 6	0 16 0
400 " 450	2 2 6	1 8 0	1 12 0	0 17 0
450 " 500	2 5 0	1 10 0	1 13 9	0 18 0
500 " 600	2 10 0	1 13 7	1 17 6	1 0 0
600 " 700	2 15 0	1 16 6	2 1 3	1 2 0
700 " 800	3 0 0	2 1 0	2 5 0	1 4 0
800 " 900	3 5 0	2 3 6	2 8 9	1 6 0
900 " 1000	3 10 0	2 6 6	1 12 6	1 8 0
1000 " 1100	3 15 0	2 10 0	2 16 3	1 10 0
1100 " 1200	4 0 0	2 13 3	3 0 0	1 12 0
Every additional 100 tons	0 5 0	0 3 6	0 3 9	0 2 0

NOTE.—The maximum rate on vessels not having British registers arriving from or sailing on a foreign voyage, £10 16s.; on vessels with British registers arriving from or sailing on a foreign voyage, £8 2s.; on vessels not steamers trading to or from a port in United Kingdom, £5 8s.; on vessels being steamers, £3 5s. 6d.

Limits of Out-Pilotage.—Larne Harbour, Co. Antrim, and Ballyhalbert, Co. Down.

Out-pilots outside the Black Head, or outside the Buoy of the Brigs, to the Whitehouse Roads, of 200 tons or upwards £2 2s. Above 100 and under 200 tons £1 11s. 6d; not exceeding 100 tons £1. Outside the Grey Point, or outside Kilroot Point, of 200 tons or upwards £1 1s; above 100 and under 200 tons 15/-; not exceeding 100 tons 10/-. Masters of vessel will take notice that the boats of the out-pilots have a white star on the bows.

Towage.—As per agreement.

Officials.—Sec. to Harb. Commrs., W. A. Currie; Harb. Master and Supt. of Pilots, W. Tate, R.N.R.; Traffic Man., G. Patrick; Lloyd's Surv., J. Turpin; Coll. of H.M. Cust., — O'Beirne.

BELMULLET, Co. Mayo, Ireland. Lat. 54° 16' N; long. 10° 0' W. Auth. the Grand Jury of co. Mayo, under Schedule to the Act 16 and 17 Vict., c. 36. A pier built by

the Board of Public Works in Ireland. **THW.** f. and c. 5h 38m ; dry at **LW.** ; 8ft to 9ft at **HWST.** **W.** prev. **SW.**

* **Charges.**—None.

Official.—Harb. Constable, E. M. Richards. Pickle Point House.

Hotels.—"Royal" and "Erris."

BELLEPORTE, Inverness, Cromarty Firth. **D.** **HWST.** 10ft ; **HWNT.** 6ft ; **THW.** at f. and c. 12h 15m.

Accom. for 4 vessels.

Charges.—Harb. dues 1d per ton.

Official.—Harb. Master, G. R. Hall.

BENWELL.—See Newcastle-on-Tyne.

BEREHAVEN.—See Castletown and Bantry.

BERWICK-ON-TWEED, Northumberland. Lat. 55° 46' N ; long. 1° 59' W. **Pop.** 14,000. **Auth.**

Harbour Commissioners, under Berwick-on-Tweed Harbours Act, 1862. **P.** **NC.** **THW.** f. and c. 2h 18m ; **Sp.** rise 15ft ; **N.** rise 11½ft ; **R.** of **N.** 8ft. **D.** on bar, **ST.** 20 to 22ft ; **N.** 14 to 16ft. **W.** prev. **NE.** **Rys.** **N.B.** and **N.E.** **Tr.**—I. Timber, guano, bones, phosphate, &c. ; E. Coal, corn, salmon, cod, haddocks, herrings, &c. **LV.** *Caloric*, 1,138 reg. ton. The harb. is formed by the lower or sea-reach of the river, which falls into the sea about one mile below Berwick Bridge, between a stone pier on the **N.** and a long low sandy spit, serving as a natural breakwater, on the **S.** **W.** of **E.** varies, but as a rule is about 300ft, facing **ESE.** Half a mile inside the pierhead on Spittal side of river is a large rock formed into a quay. Area of wet dock is 3½ acres ; depth of water **OT.** 18ft ; **HST.** 21ft. 1,500ft of quayage space. Steam crane to lift 20 tons.

Charges.—Ballast dues inward, whether landed or shifted into another vessel 6d ton ; outward 2d. Special dock dues for every ship or vessel entering the wet dock over and above the before-mentioned dues 2d for every ton. Tonnage dues on ships entering or leaving the harb. 1d to 11d. For every ship or vessel entering the harb. ¾ (for harb. duty) over and above the before-mentioned rates and duties. Dues on goods, from ½d to 4/ charged per keel of cinders or coke.

Pilotage.—District. From the sea at the mouth of the river Tweed, up the river on both shores to the mouth of the river Whittader, where it flows into the Tweed, and also from the east end of the pier, two miles in a straight line in every direction along the coast and into the sea. **Rates** (both inward and outward): In summer, viz., from April 1 to Oct. 1, 1/3 ; in winter, viz., from Oct. 1 to April 1, 1/6 ft ; and for each tide's work within the harb. 7/6.

Towage.—5/ each vessel, and 2d reg. ton on all vessels of or above 40 tons.

Officials.—Clerk to Harb. Commrs. S. Sanderson ; Harb. Master, G. Smith ; Coll. of H.M. Cust., John W. Hay.

Hotel.—"King's Arms," John Carr.

BERWICK NORTH, Haddingtonshire, Firth of Forth. Lat. 56° 3' N ; long. 2° 43' W. **Ry.** **N.B.**

There is a small trade in corn and potatoes. **D.** **HWST.** 17ft ; **HWNT.** 9ft. A lifeboat station.

Charges.—1½d per ton reg. Lights 1/. Water 1/ per vessel.

Pilotage.—1/3 per foot.

Official.—J. Marr, Harb. Master.

BIDEFORD, Devonshire. Lat. $51^{\circ} 4' N$; long. $4^{\circ} 12' 30'' W$.
Seaport on the river Torridge, 8m SE. from
Barnstaple. **Auth.** Town Council. **Ry.** S.W. **THW.** 6h 26m;
Accn. Small tidal harb. dry at **LW.** and 16ft to 18ft **HWST.**
W. prev. N. There is a wharf belonging to railway company 324ft
long with crane power to 10 tons.

Official.—Harb. Master, H. L. Hutchins.

BIRKENHEAD.—See Liverpool.

BLACKPOTS, Banffshire, near Cullen. Lat. $57^{\circ} 42' N$; long.
 $2^{\circ} 45' W$. **Auth.** Owner, Earl of Seafield.
W. prev. N. and NE. A small tidal fishing harb. **D.** 5ft to 6ft;
dry at **LW.**

Charges.—2d per ton.

BLACKROCK.—See Cork.

BLACKSHORE, Norfolk. Between Beccles and Southwold.
A small place with a dilapidated pier. **D.**
Dry at **LW.** **Auth.** The Southwold Harb. Commissioners under
Act 1830. Clerk, W. C. Tuck.

BLAKENEY and CLAY, Norfolk. Lat. $52^{\circ} 57' N$; long.
 $1^{\circ} 3' E$. 5m. NE. of Nott. **Auth.**
Harbour Commissioners under Statute 57 George III., c. 70. **THW.**
f. and c. 6h 30m. **D.** 2ft on bar at **LW.**, 13ft **HWNT.**, and 18ft
HWST. **D.** in harb. 6ft **HWNT.**, and 10ft **HWST.**, 2ft **LW.**

Official.—Clerk, C. J. Temple Lynes.

Charges.—1½d per ton on vessels and dues upon goods passing
through the cut up to the quay.

BLYTH, Northumberland. On the SW. side of the river Blyth
at its outlet. Lat. $55^{\circ} 7' N$; long. $1^{\circ} 30' W$. **Pop.**
10,900. **Auth.** Harbour Commissioners, under Act of Parliament,
45 and 46 Vict., Session 1882. **THW.** 3h 15m; **Sp.** rise 15ft; **N.**
rise 11ft; **R.** of **N.** 7ft. **D.** on bar about 10ft at **LWST.** **W.**
prev. **W.**; most dangerous NE. **Ry.** N.E. **Tr.**—I. Timber and
agricultural produce; **E.** chiefly coals. **LV.** using the harb. are
about 270ft long, 33ft beam, and 18ft dft., and have a gross carrying
capacity of about 500 to 2,000 tons. **Accn.** The total area of the
harb. from the lowest quay to upper end of Cowpen-square,
measuring to **HW.** mark, is about 64 acres. Area of **Accn.**
in the harb. for ships and boats is about 34 acres, and the average
depth over that area is about 15ft; 4 acres have a depth of 20ft,
and 1 acre 29ft. No wet docks, but two dry docks, and one gridiron.
Total length of quayage space in the harb., including the coaling
staiths, 3,300ft. Ten high-level coaling staiths upon the most
improved principle, with railway approaches and sidings for the
output of several collieries, capable of coaling into two hatchways
of a vessel at one time.

Charges.—Harb. dues 1½d to 6d. Trimming charges. Ballast
discharging at cranes 1/ ton.

Pilotage.—See Whitby.

Towage.—From roads to harb., light 1/6 per keel, loaded 2/6
per keel. From harb. to sea, loaded 2/6 per keel. For each
removal in harb. 5/.

Officials.—Clerk to Commrs., J. Easton; Harb. Master, W.
Tate; Supt. of Customs, &c., J. McKittrick.

Hotels.—"White Hart," J. Challan and Son; "Peacock and Royal," R. H. Clemow; and "Red Lion," Mrs. Dolton.

BOWLING, River Clyde, Scotland. **Auth.** (1) The Caledonian Ry. Co., who own E. portion of harb., at entrance to Forth and Clyde Canal; quay space of 750ft; two portable steam cranes; timber wharf 460ft in length. Sea-going vessels not exceeding 68½ft × 19½ft and drawing 8ft 6in can pass through the canal to Port Dundas, Glasgow, and all the ports on the East Coast. (2) The Clyde authorities own the W. portion of the harb., and use it for laying up vessels. (3) The N.B. Ry. own Friskey Wharf.

Officials.—Harb. Master, James Beaton; Coll. of Harb. and Canal dues, James Dewar; Principal Coast Officer, J. W. Wilson.

BOWMORE or KILLARROW, Argyshire, Isle of Islay.

Lat. 55° 48' N; long. 6° 18'

W. Auth. Owner, C. Morrison, Islay. **THW.** f. and c. 5h 28m. Small harb., dry at LW. used by coasters up to 50 tons. Vessels discharge into boats. Good anchorage in about five fathoms.

Charges.—Dues 1½d per ton.

Official.—J. S. R. Ballingal, factor, Eallabus, Islay.

BRADING, Isle of Wight. Lat. 50° 44' N; long. 1° 8' W.

THW. 11h 4m. **Auth.** F. H. Coldwells, of Bem-

bridge, I. of W., receiver for the High Court of Chancery. A yachting station. There is also a small trade in coal, &c., with the N. of England.

BRADWELL-ON-SEA, Essex. A sub-port of Colchester.

THW. at f. and c. 12h om. **D.**

HWST. 13ft; **HWNT.** 9ft; **LWST.** 3ft.

Accn.—Three wharves. Trade, hay and straw.

Charges.—1½d per ton reg. on vessels and 4½d per ton on coke and coals.

Official.—Harb. Master, C. W. Parker.

BRANCASTER, Norfolk. Lat. 52° 57' 30" N; long. 0° 47' E.

Auth. Owner, Elijah Sutherland. **THW.**

f. and c. 6h 17m. **W.** prev. NE., N. and NW. A small harb. 2 miles from Burnham, dry at LW.

Charges.—2d per ton and 5/ per vessel for buoyage and beaconage.

BRANDON, Co. Kerry, Ireland. Lat. 52° 15' N; long.

10° 15' W. **Auth.** Grand Jury of Co. Kerry.

THW. f. and c. 4h 23m. A small useful pier with storm wall in Brandon Bay, between Brandon Head and Tralee Bay.

Official.—E. A. Hackett, Co. Surveyor, Tralee.

BRAUNTON, Devonshire. Lat. 51° 12' N; long. 4° 12' 30" W.

Auth. Owner, Sir W. R. Williams, Bart. **THW.**

f. and c. 6h 43m. Used by colliers of 60 to 90 tons. **D.** 3ft LW. and 10ft HW.

Charges.—1/ keelage and 4d mooring.

Officials.—Agent, T. J. Pitts Tucker, Bridge Chambers, Barnstaple; Harb. Master, T. Clarke.

Hotels.—At Barnstaple and Braunton.

BRAY, Co. Wicklow, Ireland. Lat. 53° 12' N; long. 6° 10' W.

12 miles SE. of Dublin. **THW.** f. and c. 11h 28m. A small harbour into which small colliers enter at HW. over the bar of the Dargle. No Harb. **Auth.**

BRIDGENESS, Linlithgow, Scotland. Lat $56^{\circ} 2' N$; long. $3^{\circ} 36' W$. **Auth.** Owner, H. M. Cadell, Grange, Bo'ness. **THW.** f. and c. 3h 3m. **Accn.** A tidal harb. with a small trade in coals and chemicals. **D.** Sp. 15 to 18ft; N. 10 to 12ft.

Pilotage.—As per agreement. **Ballast.**—Taken from the ship's side, free.

Charges.—Harb. dues, vessels loading coals and minerals, &c., 1d per ton on the quantity shipped. Vessels discharging wood, lime, &c., &c., $1\frac{1}{2}$ d per reg. ton. Vessels beaching within the harb. to clean or repair, $1\frac{1}{2}$ d per reg. ton. Vessels beaching within the harb., if they remain beyond 4 days, $\frac{1}{2}$ d per ton additional. Stowage of coals, vessels under 100 tons, 1d per ton shipped; vessels above 100 tons, $1\frac{1}{2}$ d per ton shipped.

Officials.—Clerk, D. Twasdie; Harb. Master, J. Stupart.

Hotels.—"Bo'ness," "Clydesdale" and "Douglas."

BRIDGWATER, Somerset. An inland port on the river Parret.

Lat. $51^{\circ} 7' N$; long. $3^{\circ} W$. **Pop.** 12,000.

Auth. The Corporation. **P. C.** **THW.** on bar f. and c. 6h 50m; Sp. rise 18ft. **D.** on bar 1ft at L.W. **W.** prev. WNW. **Ry.** G.W. **Tr.**—I. Wines, hemp, tallow, timber, coals, &c.; E. Chiefly agricultural produce. **LV.** entered the dock 340 reg. ton. **Accn.** No harbour nor pier. Bridgwater Dock is 700ft by 200ft; basin, 150ft by 100ft; quays, about 1,100ft on the Parret; 12ft deep on sill OHW. **H.** of T., ST. 16ft; NT. 4ft (owned by G.W. Ry. Co.).

Charges.—Harb. dues 1d reg. ton., with 1/ for moorage. Dock dues 3 classes vary from 1d to 8d ton.

Pilotage.—**District.** Parts of the Bristol Channel and adjacent rivers and creeks, on the south-east side of, and within an imaginary straight line drawn from Anchor Head, on the east to Watchet. **Rates.** From the extreme limits of the navigation, or from any point between such limits and the outer buoy of the Gore Sand, to the town or to any point between the Black Rock and the town; also from the town to the limits of the navigation, or to any point between the outer buoy of the Gore Sand and the above limits:—Not ex. 60 tons reg. 12/ vessel; ex. 60 and not ex. 80 tons $1\frac{1}{3}$ per foot; ex. 80 and not ex. 100 tons 2/; ex. 100 and not ex. 125 tons 3/; ex. 125 and not ex. 150 tons 4/; ex. 150 and not ex. 200 tons 5/; ex. 200 and not ex. 250 tons $6\frac{1}{6}$; ex. 250 tons 8/ foot dft.

Towage.—

Vessels drawing

One tide's work, to or from—	Un. 10ft.	Un. 11ft.	Un. 12ft.	Un. 12ft.
	Pr. Ton.	Pr. Ton.	Pr. Ton.	Pr. Ton.
Burnham, Blackrock, or any intermediate place, to or from Bridgwater	3d	4d	5d	6d
Burnham to Blackrock, Dunball, or Cumbwitch.....	$1\frac{1}{2}$ d	2d	3d	3d
Burnham and Highbridge.....	2d	3d	4d	5d

Vessels can only be towed to Highbridge or Dunball, when the trade to Bridgwater permits.

Officials.—Town Clerk, Paul O. H. Reed, Jun. ; Harb. Master, J. Bryant ; Dock Master, J. Staples ; Graving Dock Man., F. Carver ; Coll. of H.M. Cust., C. Ord.

BRIDLINGTON, or Burlington, Yorkshire. Lat. $54^{\circ} 7' N$; long. $0^{\circ} 8' W$. Near Flamborough Head. Ry. N.E. THW. f. and c. 4h 39m. Auth. Pier and Harb. Commrs., by Act 1 Vict., c. 110. Harb. dries at LWST. D. at HWST. 13ft. Ordinary dft of vessels about 8ft. Crane power 3 tons.

Charges.—In ballast 2d per ton, laden 3d ; if discharged cargo 6d per ton.

Officials.— Clerk, T. Heselton ; Harb. Master, John Gray.

BRIDPORT, Dorsetshire. Lat. $50^{\circ} 41' N$; long. $2^{\circ} 51' W$. Situated on the Bride River. Auth. Commrs. under Statute 4 Geo. IV. THW. f. and c. 6h 16m. D. 4ft on bar LWNT. when channel is clear of gravel, and 12½ft at berths at HWST. Entrance 40ft wide. Ships of 300 tons enter at HW. Tr. Cordage, sailcloth, nets, and twines. Used by vessels from Russia, Norway, &c. Width between piers 51ft.

Charges.—2d per ton reg.

Officials.—Clerk, C. G. Nantes ; Harb. Master, M. J. Briggs.

Hotels.—"West Bay," "George," and "Bridport Arms."

BRIGHTLINGSEA, Essex. Entrance to River Colne. Lat. $51^{\circ} 47' N$; long. $1^{\circ} 2' W$. Auth. Corporation of Colchester under an ancient Royal Grant. THW. f. and c. 11h 56m. W. prevailing SSW. and N. The River Colne is accessible at all times in the channel. The Bar which is parallel to the channel dries LW., D. in channel being 3 to 4 fms. Used by about 200 fishing vessels, and occasionally by larger ships. LV. One of H.M. ships of 1,200 tons. There are 2 patent slipways at this place capable of taking vessels of 200 to 300 tons.

Charges.—1/ for each vessel anchoring in the River Colne.

Officials.—Town Clerk, H. C. Wanklyn, Colchester ; Harb. Master, Joseph Ames.

Hotels.—"Swan" and "Royal."

BRISTOL, a county, city, and seaport, on the river Avon, about 6½ miles above its junction with the river Severn. Lat. $51^{\circ} 27' N$; long. $2^{\circ} 38' W$. Pop. 225,000. Auth. Docks Committee of the Corporation of Bristol. P. C. THW. as follows :—

	City Docks, (Cumberland Basin Gate.	Avonmouth Dock.	Portishead Dock.
HW.	7h 13m	7h 13m	7h 13m
Sp. rise	33ft	38ft	34ft
N. rise	23	28ft	24ft

D. on bar ; though there is no regular bar at the entrance of the river Avon, there is at dead LWST. only 3½ft of water at the river mouth. There is a range of tide however of 36ft at ST. and 21ft at NT. W. prev. as follow :—City Docks : these docks, being 7 miles inland up the river Avon, may be considered as landlocked, and

not liable to damage by prev. winds. Avonmouth and Portishead Docks: the prev. winds are W., but they are not dangerous to shipping, either in or entering the dock. **Rys.** G.W., M., Bristol Port and Pier. **Tr.**—I. From United States and West Indies, grain from East Indies, Colonies, Black Sea, and America, oils, marbles, ores, seeds, fruit (green and dry), provisions, hides, tallow, timber, deals, and petroleum; E. Salt, tin-plates, railway material and machinery, manufactured oils, cotton, piece goods, spar and general goods. **LV.** as follow :—City Docks: *Bertha* 1,433 tons, *Dundee* 2,012 tons, *Frederico* 1,459 tons, *Warwick* 1,648 tons, *Frankholme* 1,714 tons, *J. B. Thomas* 1,851 tons. Avonmouth Docks: the steamers of the "Dominion," "Anchor," and other Lines, with a carrying capacity of from 2,000 to 4,000 tons, and drawing up to 25ft have regularly used the dock, and in no case has a vessel been detained a tide for want of water. The Port and Harb. of Bristol extend from Hanham Mills on the river Avon down to the mouth of that river, and thence down the river Severn and the Bristol Channel from Kingroad W., to the Steep Holmes and the Flat Holmes. The dock system comprises the *Bristol Docks* within the city; the *Avonmouth Docks* at the junction of the rivers Avon and Severn on the Gloucester side; and the *Portishead Dock* on the Bristol Channel, on the Somerset side. The chief entrance to the *City Docks* is through a lock 350ft long by 62ft wide. The total area of the docks is 85 acres with a wharfage space of 7,500 yds; the depth of water in the dock being 33ft mean ST., and 23ft mean NT. There are two entrances to these docks, the principal being at Cumberland Basin. The floating harb. connected with this tidal basin extends three miles through the centre of the city. Alongside the docks are public quays, granary capable of storing 80,000 qrs. filled with elevating machinery, transit and other sheds and many private wharves, factories and timber yards, with varying depths of water. There is extensive **Accn.** for foreign cattle, viz. :—Scheduled 800, unscheduled 600, total for 1,050 cattle, also refrigerating chambers for 300 carcasses. There are the following dry docks, &c. :—

Name.	En.		Depth of Sill.	Height of Tides.	Owner.	Remarks.
	Length.	Breadth.				
	ft.	ft.	OHW. ft.	S. N. ft. ft.		
Gridiron.....	260	40	—	20 8	Corp. of Bristol	Outside Floating Harb.
Dry Docks :—						
Gt. Western	325	48	12		M. Whitwill & Sons	Opening into Floating Harb.
Albion	522	43	14		C. Hill & Sons	(These dry docks open into the Floating Harb., and are therefore unaffected by tides.
Limekiln ..	145	34	12½		do.	
Stothert's ..	310	55	14½		G. K. Stothert & Co.	

Ample cranes and every accommodation. The Avonmouth Dock is 1,400ft long and 500ft wide, with a depth of water on sills of 38ft at mean ST., and 28ft at mean NT. Area 16 acres. Length of wharfage 1,200yds, entered from the Avon by a lock 454ft long and

70ft wide. Vessels of almost any size can enter this dock on any tide day or night throughout the year. Vessels of 30ft dft., and of any tonnage can proceed from sea up to Kingroad anchorage within one mile from dock gates at any time of the day or tide. For despatch in discharging grain and general cargo at low rates this dock claims to have no equal in Great Britain. Warehouse Accn. The sheds have a floor space of about 13 acres; a large granary capable of stowing 40,000 quarters of grain. Accommodation for 1,300 animals. The Portishead Dock is 1,800ft long, fitted with elevators, &c., 300ft wide, and has an area of 12 acres. Depth of water on sill 34ft at mean ST., and 24ft at mean NT. Length of wharfage 600yds. It is entered from Kingroad by a lock 444ft long and 66ft wide. The dock is well situated under the shelter of the Portishead Hills, and is easily accessible from Kingroad, where there is an excellent anchorage at any time of the tide. Vessels can enter or leave in any weather, and steamers enter direct from the deep fairway of the Channel without the assistance of tugs. Extensive shed accn. alongside quay; storage capacity for grain about 180,000 quarters. Splendid granaries fitted with elevators.

Charges.—Dues on shipping entering the port vary from 1½d to 1/1½ at the Bristol Docks, and 1½d to 1/4 at Avonmouth and Portishead Docks. Rates on goods imported. Labour charges and rent on goods imported. Stevedoring and all labourage on cargo undertaken by the Docks Committee at charges varying according to the nature of the cargo. For every sea-going vessel which shall remain in the Docks for any period exceeding one lunar month after entering the same, 1d. per reg. ton per week to the expiration of the second lunar month, and 2d per reg. ton per week at Bristol and Avonmouth Docks, and 1d per reg. ton per week at Portishead Dock, for every week after the expiration of such second month, until further notice.

Pilotage.—District. Defined by the Wharfage Act of 1st August, 1807, 47 Geo. III. c. 33, to be to the East of Lundy Island; and in the case of "Hall v. Cardiff Pilotage Board," November 18, 1879, that is defined to be "Eastward of a Meridional Line from North to South through Lundy," which line is 4° 40' W. long. Rates:—

		Between Landy and Coombe.	Between Landy and Swansea or Minthead.	Between Landy and Bridgwater, Cardiff, or the Holmes.	Between Landy and Newport or Kingroad.	Between Coombe and Minthead.	Between Coombe and Bridgwater, Cardiff, or the Holmes.
Tons.	Tons.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
If 80 and under 100..	1 1 0	2 2 0	2 12 6	3 3 0	1 1 0	1 11 6	
100 ..	200..	1 8 0	2 16 0	3 10 0	4 4 0	1 8 0	2 2 0
200 ..	300..	1 15 0	3 10 0	4 7 6	5 5 0	1 15 0	2 12 6
300 ..	500..	2 2 0	4 4 0	5 5 0	6 0 0	2 2 0	3 3 0
500 ..	600..	2 9 0	4 18 0	6 2 6	7 7 0	2 9 0	3 13 6
600 ..	800..	2 16 0	5 12 0	7 0 0	8 5 0	2 16 0	4 4 0
800 ..	1,000..	3 3 0	6 6 0	7 17 6	9 9 0	3 3 0	4 14 6
1,000 and upwards ..		3 10 0	7 0 0	8 15 0	10 10 0	3 10 0	5 5 0

Tons.	Tons.	Between Coombe and Newport or Kingroad.	Between Minthead and Bridgewater, Cardiff, or the Holmes.	Between Minthead and Newport or Kingroad.	Between any of the following Places, — Portishead, Kingroad, Hungroad, Broad Pill, Cumberland Basin, or Bathurst Basin, or any other of such places.	Between any two of the following places, viz., Bridgewater, Cardiff, the Holmes, Newport, and Kingroad.
If 80 and under 100.	2 2 0	0 10 6	1 1 0	0 10 6	0 10 0	0 10 6
100 "	2 16 0	0 14 0	1 8 0	0 15 0	0 14 0	0 14 0
200 "	3 10 0	0 17 6	1 15 0	1 0 0	0 17 6	0 17 6
300 "	4 4 0	1 1 0	2 2 0	1 5 0	1 1 0	1 1 0
500 "	4 18 0	1 4 6	2 9 0	1 10 0	1 4 6	1 4 6
600 "	5 12 0	1 8 0	2 16 0	1 15 0	1 8 0	1 8 0
800 "	6 6 0	1 11 6	3 3 0	2 0 0	1 11 6	1 11 6
1,000 and upwards.	7 0 0	1 15 0	3 10 0	2 5 0	1 15 0	1 15 0

Towage.—Sailing Vessel, per ton reg. :—Holmes to Avonmouth Docks, 5d. ; to Portishead Docks, 5d. ; to Bristol Docks, 7d. Kingroad to Avonmouth Docks, 3d. ; to Portishead Docks, 3d. ; to Bristol Docks, 5d. Avonmouth to Kingroad or Portishead, 3d. ; to Cardiff, 6d. ; to Newport, 6d. ; to Penarth, 6d. ; to Holms, 5d. Portishead to Kingroad, 3d. ; to Cardiff, 6d. ; to Newport, 6d. ; to Penarth, 6d. ; to Holms, 5d. Bristol to Avonmouth, 4d. ; to Portishead, 4d. ; to Kingroad, 4d. ; to Newport, 8d. ; to Penarth, 6d. ; to Cardiff, 8d. ; to Holms, 6d.

Sailing vessels over 700 tons and not exceeding 1,300 tons, to and from Bristol and Kingroad, are entitled to a second tug without extra charge, and if over 1,300 tons, to a third tug without extra charge. Sailing vessels over 800 tons register, to and from Avonmouth or Portishead Docks, are entitled to a second tug without extra charge.

Steamers : Kingroad to Avonmouth or Portishead when required, by agreement. Kingroad to Bristol when required, 4d per ton ; charge for one tug not to exceed £14. Bristol to Kingroad when required, 3d. per ton ; charge for one tug not to exceed £10. For each additional tug required, up or down the river, £5.

N.B.—These rates are now under consideration, with the view of a lower tariff being established at an early date.

Officials.—Sec. and Gen. Man., F. B. Girdlestone ; Engineer, J. W. Girdlestone ; Haven Master of the Port, Capt. E. T. Parsons, R.N. City Docks : Water Bailiff and Quay Warden, Capt. S. Baker ; Deputy do., Capt. J. Turner ; Traffic Man. and Supt. of Warehouses, J. Macnab ; Dock Master (Cumberland Basin), Capt. J. Tomlinson ; Deputy do., Capt. W. Cook ; Dock Master (Bathurst Basin), G. Dando. Avonmouth Docks : Traffic Man., J. Robson ; Dock Master, Capt. C. Hodder ; Lloyd's Agent, Capt. Tozer, I.N. Portishead Dock : Traffic Man., W. J. Ramsden ; Dock Master, E. W. Harvey ; Coll. of H.M. Cust., R. T. Dolan ; Lloyd's Agent, F. Barnard.

Hotels.—"Grand," "Royal College Green," T. J. Chapman ; "Clifton Down," H. F. Barton ; "Grosvenor," Misses Stockham and Vallender ; "Colston," The Manageress ; and "St. Vincent Rocks," The Manageress.

BRITON FERRY.—See Neath.

BRIXHAM, Devonshire. Lat. $50^{\circ} 24' N$; long. $3^{\circ} 30' W$. On W. side of Torbay. Ry. Gt. Western. Auth. Commrs. under Statute 1 Vict., c. 75, and Brixham Harb. Orders 1875 and 1877. THW. f. and c. 6h 14m. There are no docks, but a breakwater is in course of construction. When completed the harb. will have area of 145 acres, with D. from 6 to 24ft.

Official.—Clerk, W. P. Spark.

BROADSTAIRS, Kent. Lat. $51^{\circ} 21' N$; long. $1^{\circ} 22' W$. Isle of Thanet. Auth. Pier and Harb. Commrs., acting under Statutes 31 and 45 Geo. III c. 86 and 102. THW. f. and c. 11h 38m. W. prev. N. Area of harb. about 14 acres. No vessels can enter at LW., but ships of 120 tons enter HW. D. HWST. 7ft.

Charge.—1/6 per ton on coal.

Pilotage.—According to agreement

Officials.—Clerk, R. S. Dawson; Harb. Mast., S. Holbourn.

Hotels.—"Grand," "Albion," and "Balmoral."

Coal Depot.—R. S. Dawson & Co.

BRORA, Sutherlandshire. Lat. $58^{\circ} 0' N$; long. $4^{\circ} 7' W$. N. of Dornock Firth. Auth. Owner, the Duke of Sutherland. THW. f. and c. 11h 38m. Used by about 70 coasters of up to about 70 tons. There are no dues.

Official.—Factor, D. McLean, Esq., Goldspie.

BROUGHTY FERRY.—See Dundee. Pier with 10ft D. at end LW. A lifeboat station. Ry. N.B.

BRUCEHAVEN, Linlithgow. Sub-port of Grangemouth. D. HWST. 10ft; HWNT. 6ft.

BRUCKLESS, Donegal, Ireland. A small harbour belonging to the Grand Jury of Co. Donegal.

Official.—F. Gahan, Esq., C.E., County Surveyor, Donegal.

BRYERS.—See Scilly.

BUCKHAVEN, Fifeshire. Lat. $56^{\circ} 10' N$; long. $3^{\circ} 1' 44'' W$. 5 miles from Dysart. No harb. auth. THW. f. and c. 2h 33m.

BUCKIE, Nether, Banffshire. Situated on the river Buckie. Lat. $57^{\circ} 40' N$; long. $3^{\circ} 0' W$. Auth. Owner, Sir Robert Glendonwyn Gordon. THW. f. and c. 12h 43m. W. most dangerous NE. Area of harb. about 2 acres. D. 9 to 11ft at HWST., and 7 to 9ft at HWNT. Entrance nearly dry at LW. Used principally by fishing boats.

BUCKIE (Cluny Harb.). Accn. Basin 500ft by 250ft with 900ft quayage and 2 jetties. Outer En. 80ft wide. Inner En. 36ft wide. D. 8ft LW., 19ft HWST., and 16ft HWNT. Auth. Owner, Mr. Gordon, of Cluny. A lifeboat station.

Official.—Harb. Master, Robert Reid.

Hotel.—The "Cluny."

BUDE, Cornwall. Two miles NW. of Stratton. Lat. $50^{\circ} 49' N$; $4^{\circ} 32' W$. Auth. Owner, W. Davey, of Hele Bridge, Marham, Church Stratton. THW. f. and c. 6h 3m. Quayage in the canal of about 500ft frontage with D. 1 HW. No entrance except at HW. A lifeboat station.

BUDLE CREEK.—See Warrewater.

BUNAN HARBOUR.—See Kenmare Bay. There is a pier at this place in 12ft at HW.

BURGHEAD, Elgin, Scotland. Lat. $57^{\circ} 43' N$; long. $3^{\circ} 20' W$.
Auth. Owner, William Young, under the Burghead Harb. Act, 1858, and Burghead Harb. Order, 1881. THW. f. and c. 11h 45m. W. prev. W., most dangerous NE. D. at entrance 7ft LWST., 20ft HWST. LV. steamer 527 tons.

Pilotage (Compulsory).—3d per ton reg. on all vessels loading or discharging or windbound, and 2d per ton on steamers.

Charges.—4d per ton reg. on vessels loading or discharging coastwise, 2d per ton reg. on windbound vessels.

Officials.—Grigor and Young, Solicitors, Elgin; Harb. Mast., Capt. A. Taylor; Collector, C. F. Morrison.

Hotel.—"Station."

BURNHAM, Somerset. See Bridgewater. Lat. $51^{\circ} 15' N$; long. $3^{\circ} 0' W$. A landing place, dry at LW., leased by the M. and L. and S. W. Ry. Comps. since 1885 under the Burnham Tidal Harbour Act. No harb. dues.

Official.—R. Speight, Secretary, Derby.

BURNHAM OVERY, Norfolk. A creek of port of Wells. D. on bar 12ft HWST., 6ft HWNT.

BURNTISLAND, Firth of Forth. Lat. $56^{\circ} 3' N$; long. $3^{\circ} 14' W$.
Pop. 5,000. Auth. Harbour Commissioners, under Act, 1881. P. C. THW. 2h 24m; Sp. rise 16½ft; N. rise 12½ft. W. prev. SW. and W.; most dangerous SE. and S. Ry. N.B. Tr.—I. General; E. principally coal. LV. 1,416 tons reg. Vessels cannot enter harb. or dock at LWST. Accn. The harb. is easy of access, and has a good roadstead in front. It has an area of 11 acres, enclosed by piers, with an entrance 125ft wide, facing south. D. between pierheads 6ft LWST., and over rest of harb. dry. There is a wet dock of 5½ acres; entrance 50ft wide; depth 22ft 6in over sill at ST; about 1,900ft of quayage. Appliances for shipment of coal—four hydraulic hoists, ballast cranes, and a 2-ton lifting crane.

Charges.—Harb. rates from 1d to 4d per ton. Light dues ¼d per ton. Ballast 1/ per ton in dock, 9d in tidal harbour. Rates on vessels using dock: Coastwise 4d, foreign 4½d to 6d per ton reg.; Steamers—coastwise 5½d, foreign 6d per ton reg.

Pilotage.—Rates (inwards and outwards):—

£ s. d.				£ s. d.						
Vessels under 100 tons reg.	..	0	6	6	Vessels 400 and under 500 tons	0	17	6		
" 100 and under 150 tons	0	8	0	" 500 "	0	18	0			
" 150 "	"	200	"	0	9	6	" 600 "	0	10	6
" 200 "	"	250	"	0	11	0	" 700 "	0	11	0
" 250 "	"	300	"	0	12	6	" 800 "	0	12	0
" 300 "	"	350	"	0	14	0	" 900 "	0	13	0
" 350 "	"	400	"	0	15	6	" 1,000 tons and upwards	1	10	0

Towage.—Inwards or outwards 2d per reg ton, or by agreement. From Leith to Burntisland, 60 tons and under £1 15s, and 5s for every additional 20 tons.

Officials.—Harb. Master, W. Galloway; Town Clerk and Clerk to Commrs., T. A. Wallace; Coll. of H.M. Cust., G. Davidson; Harb. Dues Coll., J. Isles; Lloyd's Agent, Capt. W. Galloway; Stevedore, Mr. Peter Robb.

Hotel.—"Forth."

BURRY PORT, Carmarthenshire. Lat. $51^{\circ} 40' N$; long. $4^{\circ} 15' W$. **Auth.** Burry Port & Gwendreath Valley Ry., under Acts of Parliament. **THW.** f. and c. 6h 8m. **Accn.** Tidal harb. 15 acres in area. **En.** 220ft wide. **D.** on sill 22ft HWST., and 15ft at HWNT. Dock 400ft by 160ft, with entrance 45ft wide, and quayside of about 250ft. There are ballast cranes delivering 30 tons per hour, and staiths for coals lifting 400 tons per hour. Cranes up to 5 tons. A life-boat station.

Floating Docks accommodating vessels up to 3,000 tons; gates 45ft; **D.** on sill 22ft at HWST. and 15ft at HWNT.

Charges.—Vessels seeking shelter or freight in outer harb. free; in inner harb. 2d per ton. Vessels discharging and loading 3d per ton, or discharging or loading only 2d per ton.

Towage.—From port to sea, or from sea to port:

Under	150 tons register	4d per ton.
150 and under 200 ..	" ..	4½d "
200 ..	250 ..	5d "
250 ..	300 ..	5½d "
300 tons and upwards ..	.....	6d "

Officials.—Dep. Harb. Master, John Mitchell; Coll. of Harb. Dues, Edward Evans.

Hotels.—"Neptune," "Gwendraeth," "Cambrian," "Harbour View," &c.

BURTONPORT, Co. Donegal, Ireland. Lat. $55^{\circ} N$; long. $8^{\circ} 45' W$. **Auth.** Grand Jury, Co. Donegal. **Accn.** Area 12,000 sq yds. **D.** Dry at LWOST., 15ft at HWOST. Used by vessels of up to 250 tons. **W.** prev. and most dangerous, **W.** and SW. **THW.** f. and c. 5h 56m.

Official.—W. Hammond.

CAHIRCIVEEN, Co. Kerry. Lat. $51^{\circ} 58' N$; long. $10^{\circ} 20' W$. 3 miles from Valentia. **Auth.** The Grand Jury of Co. Kerry. **Accn.** A good pier protected from the W. by a mole. Has a berth for a steamer of about 200 tons. **D.** 6ft LW., and 20ft on bar at HW. **THW.** f. and c. 4h 2m.

Official.—E. A. Hackett, County Surveyor, Tralee.

CAISTOR. A fishing station near Yarmouth. No harb. works.

CALEDONIAN CANAL. Connecting the North and Irish Seas, from the Firth of Moray to Loch Eil. Length 60½ miles, of which 37½ are composed of locks, and the remainder of canal. Opened in 1822. Dimensions of locks, 160ft by 38ft and 15ft deep. Further information obtainable by application to the Superintendent of the Caledonian Canal, Inverness.

CALSTOCK, Cornwall. Port of Plymouth. **D.** HWST. 15ft, HWNT. 8ft.

Official.—Customs Agent, T. Greenfell.

CAMBUS, Clackmannan, Scotland. Lat. $56^{\circ} 6' N$; long. $4^{\circ} 0' W$. Firth of Forth. **Auth.** Proprietor, Lord Abercrombie; Agents, T. & B. Ranken, 17, St. Andrew's Square, Edinburgh. **Accn.** D dry at LW., 8ft HWNT., and 13ft HWST. Used by grain vessels up to 100 tons. **THW.** f. and c. 3h 33m.

CAMPBELTOWN, Argyshire. Basin of the Clyde. Lat. $55^{\circ} 25' 30'' N$; long. $5^{\circ} 35' 30'' W$. **Pop.** 7,700. **Auth.** Town Council, under Statute, 1876. **P.** NC. **THW.** 11h 45m; Sp. rise 8½ft; N. rise 6ft. **D.** from 8 to 10 fathoms; there is a rise of 8ft in ST; in harb. ST. 14ft at end

of quay, inside quay 8ft. **W.** prev. E and S. **Ry.** G. & SW. **Tr.**—I. Barley; E. Coal. **LV.** 678 reg. ton. **Accn.** Campbelton Loch, which is almost entirely landlocked, forms a natural harb. for the port. There are no harb. works, with the exception of three piers or quays, named respectively the Old, New, and Dalintober Quay. This loch constitutes the harbour; it has an area of about 13 square miles, and a depth of from 8 to 12 fathoms, and has about 500yds of quayage. Vessels of 11ft dft. can come up to the quay at **LW.**, and as there is a rise of tide from 8ft to 10ft, vessels of 19 or 20ft dft. may be berthed at the end of the quay. Crane power, 3 tons.

Charges.—Rates on vessels entering or using the harb. 3d to 6d reg. ton. Fishing boats under 15 tons 2/6 per annum. Coal dues 3d ton. Rates on goods shipped or unshipped at the harb. as per schedule. Plankage 1/ to 3/.

Pilotage.—District not defined. Rates as per agreement, but varies generally between 20/ and 30/ vessel.

Towage.—As per agreement.

Officials.—Town Clerk, D. Mactaggart; Harb. Master, A. McCorkindale; Coll. of H.M. Cust., J. Barnes.

Hotels.—"Argyll Arms," "White Hart," "Steamboat," and "Lloyd's."

CAPE CLEAR, Co. Cork, Bantry Bay.

Official.—Patrick Cotter, Harb. Constable.

CARDIFF, seaport, S. Wales. Lat. 51° 27' 48" N; long. 3° 9' 42" W. **Pop.** 130,000. **Auth.** The Bute Docks Co. **P.N.C. Tr.**—I. Provisions, grain, timber, esparto, iron ore, and all kinds of general produce; E. Coal is the chief export; large quantities of iron, steel, patent fuel, and general merchandise. **W.** prev. W., SW., SSE. to NE. Most dangerous in Penarth Roads is from Eastward and Southerly; but the dock entrances are sheltered from all winds. **LV.** The Bute Docks are capable of accommodating the largest vessels afloat. Vessels of 6,500 tons burden and upwards trade to these docks. **Tides.**—**HW.** f. and c. at 6h 56m local, or 7h 8m Greenwich; equin. Sp. rise 42ft; ordinary Sp. 37½ft; N. 29ft. R. of N. 20½ft. The Bute Docks are approached principally by a channel Northward of the one fathom bank. All the approaches are well marked by lights and buoys. Dock **Accn.** (about 111 acres). Entrance Channel.—Two graving docks about 400ft long, W. of E. 45ft; **DHW.** **OST.** 25ft; **NT.** 15ft. Another floating graving dock is now in course of construction. Gridiron 350ft long; **DHW.** **OST.** 23ft; **NT.** 13ft. Hydraulic cranes are used for discharging ballast. Sheer legs to lift 60 tons. Hydraulic cranes (50 in number) to lift from 2 to 20 tons. Two hand cranes to lift 2 and 4 tons. Graving dock 400ft long, 48ft W. of E., 17ft deep; graving dock 420ft long, 50ft W. of E., 20ft deep; graving dock 408ft long, 48ft W. of E., 17ft deep. Roath Basin—(area 12 acres) entrance 80ft wide, 1,000ft long, 550ft wide in centre, quayage 2,700ft long. **DW.** on sill **OST.** 35ft 9in; **NT.** 25ft 9in. Ten staiths for the shipment of coal, with the latest improvements in hydraulic machinery. Two hydraulic cranes to lift 2 tons. Two graving docks 600ft long, each entrance 60ft wide. Vessels can be docked at any time irrespective of tides. Roath Dock.—Inner lock, 600ft long, 80ft wide; dock (area 33 acres) 2,400ft long, 600ft wide; quayage 5,000ft; **DW.** on sill of sea lock **OST.** 35ft 9in; **NT.** 25ft 9in. This

dock is now fitted with the latest improvements for the rapid and careful handling of coals. Steamers can be loaded into two or more hatchways simultaneously at the rate of 600 tons per hour with the minimum of breakage. Hydraulic appliances for the rapid handling, discharging, and distributing of grain, general merchandise, and iron ore. Warehouses are provided to meet all requirements, both as regards import and export goods. The Public Graving Dock.—This is a public graving dock, in which shipowners may employ their own labour and find materials. All necessities for securing ships are supplied by the dockowner at moderate charges. Dock dues (which are very reasonable) and all other information can be obtained on application at the Bute Docks Office. Dimensions:—Length from caisson to head of dock 600ft; length on blocks 580ft; W. of E. 60ft. Vessels can be docked at any time irrespective of tides. Steam Packet Harb. with bridge and floating pontoon, DHW. ST. 33ft 3in; NT. 23ft 3in. Steam crane to lift 6 tons. Pier head crane to lift 4 tons. Channel coal staith, for tug-boats and coasters, worked by hydraulic power, DHW. ST. 28ft; NT. 18ft. LW. Pier, with floating pontoon and hydraulic lift; hydraulic crane to lift 10 tons, DHW. ST. 43ft 8in; DLW. ST. 5ft 8in; DHW. NT. 33ft 8in; DLW. NT. 15ft. West Bute Dock.—Entrance to basin, 45ft wide; basin (area $1\frac{1}{2}$ acres) 300ft long, 200ft wide; lock 152ft long, 36ft wide; dock (area 18 acres) 4,000ft long, 200ft wide; quayage 8,800ft long; DW. in dock 19ft and 13ft, viz., 1,550ft of 19ft deep, 2,450ft of 13ft deep; DW. on sill OST. 28ft 9in; NT. 18ft 9in. There are 13 staiths for the shipment of coal. The ballast cranes (four in number) are capable of discharging 100 tons per hour. Cranes (four in number) to lift 10 tons. Graving dock 235ft long, 40ft W. of E., 12ft deep. East Bute Dock.—Sea lock 220ft long, 55ft wide; basin (area $2\frac{1}{2}$ acres) 380ft long, 250ft wide; inner lock 200ft long, 49ft wide; dock (area 44 acres) 4,300ft long, 300 and 500ft wide, viz., 1,000ft long by 300ft wide, 3,300ft long by 500ft wide; quayage 9,360ft long; DW. in dock 25ft; DW. on sill of sea lock OST. 31ft 9in; NT. 21ft 9in. There are 19 staiths in the dock and one in the basin for the shipment of coal, with the latest improvements in hydraulic machinery. The Bute Docks are supplied with the most modern machinery, the greater portion of which is worked by hydraulic pressure. Amongst the appliances are coal staiths, fixed and movable, some capable of shipping 300 tons per hour, about 60 cranes, a large number of which are movable and worked by hydraulic power, lifting up to 20 tons; powerful shear legs, capable of lifting up to 60 tons; hydraulic capstans, for discharging timber and assisting in the moving of vessels, &c. Large warehouses and transit sheds. Warrants are issued on all goods in the dockowners' custody. Rys. G.W., R., T.V., L. & N.W., M., Rhymney and B. and M. The Windsor Slipway, between Cardiff and Penarth, is capable of taking the largest vessels.

Charges.—Dock rates from 1d to 9d per ton. Loading charges (trimming coal) $2\frac{1}{2}$ d and 3d per ton cargo. Wharfage and labour charges very reasonable. Ballast 6d to 1/1 per ton. Sundry dues.

Pilotage.—District. The port of Cardiff and that portion of the Bristol Channel eastward of Lundy Island up to and including Kingroad and the river Rhymney to Rhymney Bridge. **Rates** per vessel:—Between any dock or harb. in the port of Cardiff, and

any point in Cardiff Roads, or *vice versa*, for vessels laden and unladen :—

	£	s.	d.		£	s.	d.
If under 60 tons	0	5	0	500 and under 600 tons.....	1	7	6
60 and under 100 tons.....	0	7	6	600 " 800 ".....	1	10	0
100 " 150 ".....	0	10	0	800 " 1,000 ".....	1	15	0
150 " 200 ".....	0	12	6	1,000 " 1,300 ".....	2	10	0
200 " 250 ".....	0	15	0	1,300 " 1,500 ".....	3	0	0
250 " 300 ".....	0	17	6	1,500 " 1,700 ".....	3	10	0
300 " 400 ".....	1	1	0	1,700 tons and upwards.....	4	0	0
400 " 500 ".....	1	5	0				

From the port of Cardiff to any part of the Bristol Channel, between Lundy Island and Kingroad, for a duly licensed pilot :—

	Between Cardiff Roads and Nash or Kingroad, or any Point East of Nash and West of Kingroad.	Between Cardiff Roads & 'Combe, or any Point West of Nash and East of 'Combe.	Between Cardiff Roads & Lundy Island, or any Point West of 'Combe.
	£ s. d.	£ s. d.	£ s. d.
If under 150 tons	0 15 0	1 5 0	2 0 0
150 and under 200 tons ...	0 17 6	1 10 0	2 7 6
200 " 300 ".....	1 0 0	1 17 6	2 17 6
300 " 400 ".....	1 5 0	2 5 0	3 5 0
400 " 500 ".....	1 7 6	2 10 0	3 10 0
500 " 600 ".....	1 10 0	2 15 0	4 0 0
600 " 800 ".....	1 15 0	3 0 0	4 7 6
800 " 1,000 ".....	2 0 0	3 15 0	5 10 0
1,000 " 1,250 ".....	2 10 0	4 15 0	7 0 0
1,250 tons and upwards.....	3 0 0	5 15 0	8 10 0

Any pilot required to remain on board any ship or vessel shall be paid 10/ per day for every day he may be employed. For moving any ship or vessel from one dock or tidal harb. to another dock or tidal harb., occupying only one tide, not ex. 100 tons reg. 5/; 100 and not ex. 300, 10/; 300 and not ex. 500, 12/6; 500 and not ex. 800, 17/6; 800 and upwards £1 5s.

Towage.—In Bute Docks :—

Reg. tons.	Reg. tons.	Reg. tons.	Reg. tons.
Under 50	3/9	Over 900 and under 1,000...	30/0
Over 50 and under 100...	5/3	" 1,000 " 1,100...	33/9
" 100 " 200...	7/6	" 1,100 " 1,200...	37/6
" 200 " 300...	11/3	" 1,200 " 1,300...	41/3
" 300 " 500...	15/0	" 1,300 " 1,400...	45/0
" 500 " 700...	18/9	" 1,500	48/9
" 700 " 900...	22/6		

and 2/6 for every additional 400 tons or portion thereof. **Coasting Towage.** Inwards in ballast 1½d; inwards with cargo 2d; outwards with cargo 2d reg. ton.

Officials.—Offices, Bute Docks; Gen. Man., Sir W. T. Lewis; Sec., T. S. Esson; Engineer, Charles L. Hunter; Dock Master, Ralph Pomeroy; Accountant, E. A. Hart; Joint Colls. of Dues, H. Lander and D. Edmunds; Warehouse-Keeper, &c., J. J. P. Burt; Traffic Man., D. Morgan.

CARDIGAN, Cardiganshire. Lat. 50° 32' N; long. 4° 20' W. Pop. 3,669. **Auth.** The Mayor and Town Council. **P. NC.** **THW.** f. and c. 7h 1m; Sp. rise 12ft; N. rise 9ft. **DC.** on bar at ST. about 14ft HW. and about 9ft NT. There may be a foot or two greater depth within the bar, but at LW. there is not a boat passage. **Ry. G.W.** **Tr.**

—I. Coal, culm, limestone, patent manures, timber; E. Bricks, slates, flags, earthenware. **LV.** Vessels of 12 to 13ft dft. can enter the port; they must wait at that dft. for **HT.** **Accn.** Warehouse accn., one small crane. Patent slipway at Newquay, 389ft long, 20ft wide. H. of T. **ST.** 10ft; **NT.** 5ft. Cradle 105ft long.

Charges.—No port charges.

Pilotage.—District not defined. No pilotage charges.

Towage.—As per agreement.

Officials.—Supt., F. Layzell; Second Officer of Cust., D. Cronin.

CARLINGFORD, Co. Louth. Lat. $54^{\circ} 1' N$; long. $6^{\circ} 5' W$.

Auth. Grand Jury, Co. Louth. Secretary,

J. Filgate. **Accn.** A tidal harb. **D.** 10 to 20ft **HWST.** **LV.** 650 tons. **W.** prev. **W.** New pier shelters from all winds. **THW.** f. and c. 11h om.

Official.—Harb. Master, James Salmon.

CARLINGFORD LOUGH.—**Auth.** Commrs. under a Provisional Order, the Piers and Harbours Confirmation Acts 27 and 28 Vict. c. 93; also Amended Orders 1868, 1874, 1875, and 1884. **D.** on bar 16ft **LWST.** **LV.** 2,000 tons, drawing 24ft.

Charges.—A free port of refuge. Tonnage Rates.—For every sailing vessel of and under 300 tons reg. entering Carlingford Lough and discharging cargo there, 2d per reg. ton; for every sailing vessel exceeding 300 tons reg. entering Carlingford Lough and discharging cargo there, 3d per registered ton; for every steam vessel entering Carlingford Lough and discharging or loading cargo there, which for loading or unloading is dependent on tidal waters, within the harbour, 1 $\frac{1}{2}$ d per reg. ton; for all other steam vessels entering Carlingford Lough and discharging or loading cargo there, 6d per reg. ton; for every vessel entering Carlingford Lough for refuge without delivering or loading cargo there: being sailing vessels exceeding 100 tons register, and steam vessels exceeding 150 tons reg., but not in case of any kind of vessel exceeding 500 tons reg., 2d per reg. ton; being sailing vessels or steam vessels exceeding 500 tons reg., 3d per reg. ton. Exemptions. All sailing vessels of and under 75 tons reg., and all steam vessels of and under 100 tons reg.; all sailing vessels of and under 150 tons reg., and all steam vessels of and under 200 tons delivering or loading cargo at the town or in the river of Newry, north of Old Narrow Water Castle. Anchorage Dues.—Ship or barque, foreign or coasting trade, £1 1/; brig or brigantine, foreign trade, 10/6; schooner or galliot, foreign trade, 3/; brig or brigantine, coasting trade, 5/; schooner, coasting trade, 4/; sloop, coasting trade, 3/; smack or wherry, coasting trade, 2/; steam packet, each voyage, 5/.

Official.—Sec., Capt. Thomas Smith, Greenore.

Hotels.—Greenore, L. & N.W. Ry.; Rostrevor, "Mournes;" Warrenpoint, several; Meath, "Strand."

CARMARTHEN, Carmarthenshire. Lat. $51^{\circ} 22' N$; long. $4^{\circ} 20' W$. On the Towy. **Rys.** Manchester, Milford, Pembroke, and Tenby. **Auth.** Town Council (Clerk, R. M. Thomas). **Accn.** For small vessels. **D.** at **LW.** 2ft, and 26ft at **HWST.** **W.** prev. **SW.** **THW.** 6h 2m. No dues. A lifeboat station at Ferryside, mouth of river.

Official.—Harb. Master, John Rees.

CARNARVON, Carnarvonshire. On the Menai Straits. Lat. $53^{\circ} 6' N$; long. $4^{\circ} 30' W$. Pop. 10,258. Auth. Harbour Trustees, under Acts 33 Geo. III. c. 123, 49 Geo. III., c. 24, and the Carnarvon Harb. Order, 1874. P. C. THW. f. and c. 9h 27m. Sp. rise $15\frac{1}{2}$ ft; N. rise 12 ft. D. on bar, least, 7 ft. W. prev. from SW.; most dangerous from WNW. Ry. L. & N. W. Tr.—I. Timber, grain, coals; E. Principally slate. LV. which have entered at tide time have been from 175 to 309 reg. ton. Accn. Area of basin or dock 4a 3r 6p. Depth of water at entrance 12 ft at HWOT., $15\frac{1}{2}$ ft ST. Quayage space 582yds long. The basin or dock is available for vessels to enter from half to high tide. Area of harb. and basin 24a 1r 6p. Slipways:—

Name.	Length.	Width.	H. of T.		Cradle Length.
			ST.	N.	
Patent Slip	ft. 328	ft. in. 17 10	ft. 8	ft. 6	ft. 54
Gridiron	120	—	—	—	—

Charges.—Harb. dues: outward $1\frac{1}{2}$ d reg. ton; inward 1d with coal only; other cargoes 2d.

Pilotage.—District. From the outwardmost buoy on the bar of Carnarvon, into and out of Carnarvon harb., and in the Menai Strait, to Port Dinorwic, or Moel-y-Don, and *vice versa*. Rates:—

Distances.	7 ft and under.	8 ft	9 ft	10 ft	11 ft	12 ft	13 ft	14 ft	15 ft	16 ft	17 ft	18 ft	19 ft
From the Outwardmost Buoy on the Bar to the Anchorage off the Town or the lawful Quays, and <i>vice versa</i>	10/	11/	12/	14/	16/	17/	25/	35/	45/	55/	70/	90/	120/
From the Anchorage off the Town or the lawful Quays to Port Dinorwic, or Moel-y-Don, and <i>vice versa</i>	4/	4/	5/	6/	7/	7/6	9/	12/6	15/	17/6	20/	25/	30/
From the Anchorage off the Town or the lawful Quays (no Swellies pilot offering) to Cadnant, through the Swellies, and <i>vice versa</i>	6/	8/	9/	10/	11/	12/	13/	14/	15/	16/	17/	18/	—
From Port Dinorwic, or Moel-y-Don (no Swellies Pilot offering) to Cadnant, through the Swellies, and <i>vice versa</i>	4/	6/	6/9	7/6	8/3	9/	9/9	10/6	11/3	12/	12/9	13/6	—

For half a foot exceeding the above draughts of water, the medium

between the rates stated in the above table. For intermediate distances, a proportionate rate. Pilots boarding vessels outside or to seaward of the outwardmost buoy on the bar, are entitled to a further sum of 1/6 per mile for the extra distance from sea to said buoy.

Towage.—As per agreement.

Officials.—Clerk to Trust., J. Jackson; Harb. Mast., W. Griffiths.

CARNLOUGH, Co. Antrim. Lat. $54^{\circ} 59' N$; long. $6^{\circ} 0' W$.

Auth. Owner, Marquis of Londonderry, under Prov. Order, 1882. Used by steamers and by vessels in the limestone and iron ore trade up to 350 tons. **D.** at LW. 6ft. **W.** prev. SW., most dangerous SE., round by E. to NE.

Official.—James Foster.

CARNOUSTIE, Forfarshire, Scotland. Lat. $56^{\circ} 30' N$; long. $2^{\circ} 40' W$. A small harbour, dry at LW.

CARRADALE, Argyleshire. Lat. $56^{\circ} 36' N$; long. $5^{\circ} 33' W$.

Auth. Owner, D. C. R. Carrick Buchanan, of Carradale. There is a pier with water at all times of tide. A good anchorage in offshore winds in from 5 to 7fms. A place much frequented in the fishing season.

CARRICKFERGUS, Co. Antrim. Situated in Belfast Lough.

Lat. $54^{\circ} 39' N$; long. $5^{\circ} 53' W$. **Ry.** Harb. Junction. **Auth.** Harb. Commrs., under Prov. Order, 1862, confirmed by Act of Parliament. **Accn.** Tidal harb. 1,200ft by 500ft. **En.** 80ft wide. **D.** 14ft HWST. **D.** in old harb. 8ft HW. Dry docks and slipway. **THW.** f. and c. 10h 40m.

Charges.—On vessels 3d per ton, vessels in ballast 1½d, and 1d per ton for harb. boat. Crane 3d per ton.

Officials.—Town Clerk, James Boyd; Harb. Master, David Robb.

CARSETHORN.—A creek of Dumfries 12 miles below Dumfries. An open beach. **D.** HWST. 18ft,

HWNT. 10ft.

Official.—James Harris, Collector.

CART RIVER.—See Paisley.

CARTY.—A creek of Dumfries.

CASTLEHAVEN, island near Barlogue, Ireland. Lat $51^{\circ} 30' N$; long. $9^{\circ} 10' W$. **Accn.** for vessels

drawing up to 12ft.

CASTLEHILL, Caithness, near Thurso. **Auth.** Messrs. J. C.

Brodie & Sons. **Accn.** Three loading berths. **D.** 10ft to 14ft HWST; 2 ballast berths, **D.** 7ft to 10ft HWST; a basin affording room for 3 vessels from 100 to 150 tons. **W.** only dangerous, WNW. **Tr.**—Paving stone. **I.** Coals, lime, manures, &c.

CASTLEMAINE, co. Kerry. Lat. $52^{\circ} 10' N$; long. $9^{\circ} 43' W$.

A tidal quay. **Auth.** Grand Jury of co. Kerry. Safe anchorage for small vessels. **D.** on bar 10ft LW. **THW.** f. and c. 3h 30m.

Official.—E. A. Hackett, co. surveyor, Tralee.

CASTLETOWN, Co. Cork.—See Berehaven. Anchorage and pier in Bantry Bay. Vessels of 400 tons lie here. **D.** alongside pier 11ft HWST., 8ft HWNT.

Official.—J. Harrington, Harb. Constable.

CASTLETOWN.—See Isle of Man.

CASTLE TOWNSEND, Co. Cork. Lat. $51^{\circ} 35' N.$; long. $9^{\circ} 15' W.$ A small place under the port of Skibbereen. D. HWST. 24ft, HWNT. 21ft.

CATTEWATER.—See Plymouth.

CELLARDYKE, Fifeshire. A fishing village under the port of Kirkcaldy. D. HWST. 14ft, HWNT. 9ft

CEMMAES, or Kemmaes, Anglesea. Lat. $53^{\circ} 25' N.$; long. $4^{\circ} 28' W.$ A small harb. with 7ft at LW., and with 15ft range of tide. Used by vessels drawing 12ft to 14ft. No vessel can enter at LW. A lifeboat station. Auth. A committee, self-elected.

Official.—W. Jones, Buarthyfoel, Amlwch.

CHANNEL ISLANDS.—Alderney, Guernsey, Jersey.

Lat. $49^{\circ} 46' N.$, $49^{\circ} 26' N.$, $49^{\circ} 15' N.$; long. $2^{\circ} 12' W.$, $2^{\circ} 37' W.$, $2^{\circ} 5' W.$ Alderney.—Pop. 3,100. THW. f. and c. 6h 46m; Sp. rise $17\frac{1}{2}$ ft; N. rise $12\frac{1}{2}$ ft. Auth. Admiralty and Woods and Forests and War Depts. LV. HMS. *Mistletoe* at LWST. D. at entrance LWST. 127ft. Harbours are at Braye and Crabby, and dry at LW. Vessels drawing 14ft enter at HW. W. prev. are Easterly, but the most dangerous are those from ENE. leading into the harb. The harbours on the north side of the island, are formed by a pier or breakwater 1,609yds in length. Area 196 acres. No docks. Depth at breakwater is from 21ft inner end to 134ft outer end.

Charges.—Harb. dues, inwards 6d reg. ton, outwards 3d reg. ton. Steamers carrying mails 5/ inwards and 2/6 outwards, per vessel. Additional on coal-laden vessels 1½d ton on cargo. Anchorage and chainage 6d to 10/ each per vessel. All vessels pay 2/ pier pass.

Pilotage.—7d. per ton.

Official.—Harb. Master, F. Brice.

Guernsey. Auth. States of the Island of Guernsey, under Treasury Warrant, Oct. 9, 1875. *St. Peter's Port*. Pop. 32,500. THW. f. and c. 6h 37m; Sp. rise 32ft; N. 20ft. Three piers with landing stages. D. at LW. equi. ST. 5, 10, and 13ft respectively. W. prev. SE. to SW. Two patent slips with cradles 145ft long, with 15ft of water on the heads of cradles at HW. equi. ST. Hauling by steam. *St. Sampsons*. An average D. of W. at OST. 12 to 20ft. En. dry at LWST. W. prev. SE. to SW.

Charges at both these Ports. Harb. and tonnage dues 3d to 9d per ton. Charges on cattle, &c. 5d to 4/5 each. Charges on goods, Timber, &c. 2/6 per ton, &c.

Official.—Harb. Master, Captain W. C. Jones.

Jersey. Pop. 53,000. Auth. States of the Island of Jersey. Tr.—I. Woollen fabrics, hardware and cutlery, glass, soap, &c.; E. Granite, cattle, butter, fruit, potatoes, oysters, &c. Railway accommodation. *St. Heliers*. THW. f. and c. 6h 29m; Sp. rise $31\frac{1}{2}$ ft; N. rise 23ft. Dry at LW. Area of Victoria and Albert Harbs. 32 acres; old Harbs. 13 acres. Piers carried into 14ft LWST.; about 8,000ft space. W. prev. SW., but WSW. most dangerous. LV. vessels of 300 tons reg. can lie at Old North Pier. Accn. at Albert Pier or Victoria Harb. for those of 800 tons, as there is no water between the pier heads at LWST. vessels can only get to berth from half flood to two hours ebb. Charges—Harb. dues 9d to 1/ ton; Harb. Master's fee 1d ton. Good crannage accommodation. *Gorey*, a pier 900ft long by 30ft wide. D. at pier heads HWST.

29ft. HWNT. 14ft. ; LWST. dry ; LWNT. 3ft. W. prev. Westerly ; most dangerous Southerly. LV. 300 tons. Charges.—6d, 8d, and 1s per ton. *Rosel*. THW. f. and c. 6h 15m ; Sp. rise 30ft ; N. rise 21½ft. D. at pier head HWST. 29ft ; HWNT. 14ft. ; LWST. dry ; LWNT. 3ft. W. prev. Westerly ; most dangerous, Easterly. *St. Aubins Harb.* 3 and 1½ acres. En. dry at HW. W. prev. WSW. Charges—8d to 1/ per ton.

Officials.—Alderney.—Clerk to Woods and Forests Dept., G. Russel Sowray ; Harb. Master, J. Brice. Guernsey.—Harb. Master, Capt. A. Martin. Jersey.—Harb. Masters : *St. Heliers*, Capt. W. Bichard ; Dep. Harb. Master, Capt. T. Le Dain ; *St. Aubins*, Capt. P. de St. Croix ; *Goree*, Capt. C. Pallot.

CHARLESTOWN, Cornwall. Lat. 50° 20' N ; long. 4° 41' W.

Auth. Owners, A. G. Crowder and Trustees of the late E. J. Sartoris. **Accn.** for about 18 coasting vessels ; crane to lift 15 tons. Dry at LW. Vessels drawing 13ft and up to 400 tons enter at HWST. THW. f. and c. 5h 11m.

Officials.—Manager, H. J. Bulteel ; Harb. Master, J. C. Moore.

CHARLESTOWN, Fifeshire. Lat. 56° 2' N ; long. 3° 32' W.

N. side of Firth of Forth. **Auth.** N. B. Ry., under Acts 1859, 1861 and 1862. **Accn.** Area 4½ acres. Dry at LW. D. at HW. 12ft N., and 15ft ST. Five coal staiths and a 3-ton crane. THW. f. and c. 2h 43m.

Charges.—Steamers, 2d per ton ; sailing vessels, 1d ; harb. lights, 1/ per vessel.

Officials.—J. Walker, Gen. Man., N.B. Ry. Co., Edinburgh ; Harb. Master, J. Addison.

Hotel.—"Elgin Arms."

CHATHAM, Kent, River Medway. Adjoining Rochester.

Principally noted for the Government Dockyard.

Rys. L.C. & D. and S.E. Hoys between London and Chatham every Wednesday and Saturday. THW. f. and c. 1h 11m.

CHEPSTOW, Monmouthshire. At the confluence of the Wye and the Severn. **Auth.** Owner, Duke of Beaufort.

There is no harb. ; vessels lie in the river Wye. The tide rises higher at this place than in any other place in Europe, to between 50 and 60ft at Equin. ST. Messrs. Watkins, Baker, Baylis and Baker, 11, Sackville-street, London, are Solicitors for his Grace.

CHESTER, Cheshire. See also Bagilt and Connah's Quay.

Lat. 53° 12' N ; long. 2° 53' W. Pop. 37,000.

Auth. The river Dee is under the jurisdiction of a Board of Commissioners. There is not practically any harb. at Chester, but important works are now in progress for deepening the river Dee. Chester is served by the following **Rys.** : G.W., C.L.C., L.N.W., B.J. (G.W. and L.N.W.). The shipping entering this river is accommodated at the following quays, &c. :—*Bagilt*, a quay owned by Walkers, Parker & Co. D. at ST. 11ft ; no harb. dues ; lighterage, 1/6 ton ; anchorage, 1/ vessel ; ballast, 1d ton. *Connah's Quay*, about half way between Chester and the mouth of the Dee river. Connah's Quay is the northern terminus of the W.M. & C. Railway. There are two tidal docks here ; steam and hand cranes ; every convenience for shipping. D. Sp. 17ft ; N. 10 to 12ft alongside wharf at LW. Gen. Man., Thos. Cartwright, Wrexham. Connah's Quay is in direct communication with the M., G.N., and M.S.L. Rys.

Tr.—Timber, ore, pig-iron, grain, &c. *Flint*, a small dock used principally by the owners (Muspratt Bros. & Huntley). *LV.* draws 12ft when loaded; at LWST. vessels cannot enter. *Greenfield*, 3 miles above Mostyn. Vessels of 11ft dft. can reach this at ST., and those of 5ft at N. *Queen's Ferry Quay*, belonging to the Aston Hall Coal and Brick Co. *Mostyn* imports a large quantity of iron ore and timber, and exports coal, &c. Wild Roads at entrance of the river Dee is a safe and commodious place where large vessels may lie at anchor and discharge into lighters. Sp. rise 18ft, N. 10ft. THW. f. and c. oh 16m.

Pilotage :—Foreign Pilotage Rates (INWARD) per foot—

FROM	TO							
	Wild Roads.		Mostyn.		East of Mostyn to Connah's Quay.		East of Connah's Quay.	
	Wn.	Sm.	Wn.	Sm.	Wn.	Sm.	Wn.	Sm.
The Great Ormeshead	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Inside of N.W. Patch Buoy, or Bar Buoy, North Deep or Fairway Buoy in Hilbre Swash	7	0 6	0 8	0 7	0 8	6 7	6 9	0 8
Inside Earwig or South Hoyle Buoy, or Hilbre Island	6	0 5	0 7	0 6	0 7	6 6	6 8	0 7
Wild Roads	5	0 4	0 6	0 5	0 6	6 5	0 7	0 6
	...	...	3	0 2	0 5	6 5	0 6	6 5

Foreign Pilotage Rates (OUTWARD) per foot—

FROM	TO							
	Wild Roads.		Mostyn.				Sea.	
	Wn.	Sm.	Wn.	Sm.	Wn.	Sm.	Wn.	Sm.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
East of Connah's Quay	5	0 4	6 6	0 5	0	...	7	0 6
Connah's Quay to East of Mostyn	1	6 4	0 5	6 4	6	...	6	0 5
Mostyn	3	0 2	0	...	...	...	6	0 5
Wild Roads .....	...	...	3	0 2	0	...	5	6 4

7/6 per tide shifting; 7/6 per day if detained on board within the district; 10/6 per day if taken outside district, and travelling expenses.

Coasting Pilotage Rates (INWARD) per foot—

FROM	TO			
	Wild Roads.		East of Mostyn to Connah's Quay.	
	Wn.	Sm.	Wn.	Sm.
Outside the N.W. Patch Buoy, or Bar Buoy, North Deep or Fairway Buoy in Hilbre Swash—vessels 60 tons net register and under	s. d.	s. d.	s. d.	s. d.
Ditto, vessels from 60 tons to 80 tons net register	1	3	1	6
Wild Roads—	...	...	...	...
Vessels 60 tons net register and under ...	...	1	3	1
Vessels from 60 to 80 tons net register ...	...	1	6	1

And as to vessels over 80 tons net register, 2d per foot extra for every additional 20 tons net register on each rate respectively.

Coasting Pilotage Rates (OUTWARD) per foot—

FROM	To			
	Wild Roads.	Mostyn.	Connah's Quay.	Sea.
	s. d.	s. d.	s. d.	s. d.
Chester, or any place East of Mostyn, for vessels 60 tons net register, and under ...	1 6	1 6	1 0	2 3
Ditto, from 60 to 80 tons net register	1 9	1 9	1 3	2 6
Mostyn—				
Vessels 60 tons net register, and under ..	1 3	...	1 6	1 9
Vessels from 60 to 80 tons net register ...	1 6	...	1 9	2 0
Wild Roads—				
Vessels 60 tons net register, and under ...	...	...	...	1 9
Vessels from 60 to 80 tons net register ...	...	...	...	2 0

And as to vessels over 80 tons net register, 2d per foot extra for every additional 20 tons net register on each rate respectively. 5/ per tide shifting; 5/ per day if detained on board within the district; 7/6 per day if taken outside district, and travelling expenses.

NOTE.—Winter Season commences October 1, and ends March 31. Coasters pay one-half the above rates. No vessel to pay for less than 8ft dft., nor to pay for odd inches under or over half a foot. Also 5/ day for each day the pilot is kept on board.

Towage.—Vessels discharging at the G.W. Ry. Co.'s wharves free. Custom House is situated at Connah's Quay, Supt., E. Hughes.

Officials.—Sec. Pilot Trust., R. Williams; Pilot Master, J. Coppack; Harb. Master, Connah's Quay, Mr. Miller; Tug Owners, Coppack, Carter & Co.

Hotel.—"Hare and Hounds."

CHICHESTER, Sussex. Lat. 50° 46' N; long. 0° 55' W.

Ry. L.B. & S.C. Harb. is 2m from the city, and is an inlet of the English Channel, containing Thorney Island. D. 2ft LW. THW. f. and c. 11h 45m.

CHRISTCHURCH, Hampshire. Lat. 50° 44' N; long. 1° 45'. Situated between the Avon and the Stour. Harb. dries at LW. There is a double tide in the bay. THW. f. and c. 9h om.

CHURCH BAY, Holyhead.—See Sutan.

CINQUE PORTS. Originally five in number, but afterwards increased to eight, viz., Dover, Sandwich, Hythe, and Romney, in Kent, and Rye, Winchelsea, Hastings, and Seaford, in Sussex. These ports formerly had important privileges, and were bound to furnish a certain number of ships of war to the sovereign in return. The first Charter was granted by William I. in 1078. The Lord Warden of the Cinque Ports is also Constable of Dover Castle.

CLACKMANNAN, Clackmannanshire.—See Kennetpans. On N. Bank of Firth of Forth, 27 miles above Queensferry. Lat. 56° 6' N; long. 3° 47' W. 7m E. of Stirling, at the junction of the rivers Devon and Forth. D. HWST. 18ft, and HWNT. 14ft. Rys N.B. The port is a private one used for shipping coals by the Clackmannan Coal Co. Steam cranes. Steamers up to 1,000 tons load. Bed, soft mud 6ft deep.

Charges.—1d per ton reg.

CLARE CASTLE, Co. Clare, Ennis, Ireland. Lat. $52^{\circ} 49' N$; long. $8^{\circ} 57' W$. Situated on the river Fergus. Ry. L. & E. Auth. Trustees, under Act 9 and 10 Vict., c. 86. Accn. Quayage 700ft, sheltered from all winds. Dry at LW. D. in river 18ft to 22ft. Used by vessels up to 500 tons.

CLAY.—See Blakeney.

CLEVEDON, Somerset, near Avonmouth, Bristol Channel.

Auth. Clevedon Pier Co. A pier 840ft long.

D. at pier head at HWST. 45ft, and 7ft LWST.

Charges.—2d per person landing or embarking. No cranes.

Officials.—Sec., H. C. Fry, Clevedon; Pier Master, W. Mants.

Hotel.—"Royal Pier."

CLIFDEN, Co. Galway.—See Ardbear. Lat. $53^{\circ} 30' N$; long. $10^{\circ} 0' W$. A pier belonging to the Grand Jury of

Co. Galway. D. HWST. 12ft, HWNT. 7ft. Dry at LW. Used by small coasters. Sometimes vessels of 100 to 200 tons load and discharge at pier, and vessels of 800 tons have discharged in bay. W. prev. SW. THW. f. and c. 4h 30m.

Official.—Edward Kendall, Clifden.

CLONIKILTY, Co. Cork. Lat. $51^{\circ} 35' N$; long. $8^{\circ} 50' W$.

Pop. 3,600. D. HWST. 12ft, HWNT 8ft, alongside quay. No harb. dues.

Official.—Harb. Master, R. E. Honner.

CLONTARF, on N. side of Dublin Bay. D. HWST. 9ft, HWN. 7ft.

CLOVELLY, Devonshire. Lat. $51^{\circ} 0' N$; long. $4^{\circ} 23' W$. A small harb. dry at LW. Auth. Owner, Mrs.

Christine Louisa Hamlyn. W. prev. W. to N. and NE. Protected by a small breakwater. Dry till half flood. D. from 3ft to 8ft. THW. f. and c. 6h 0m. A lifeboat station.

Officials.—T. J. Pitts Tucker, Barnstaple; Harb. Master, W. Moss.

Hotels.—"Red Lion" and "New Inn."

CLYTH, Caithness (see Auchmaster). Lat. $58^{\circ} 17' N$; long. $3^{\circ} 15' W$. A fishing harbour. D. HWST. 11ft, HWNT. 8ft.

Official.—Harb. Master, J. Sutherland.

COCKENZIE, Haddingtonshire, Scotland. Lat. $55^{\circ} 58' N$; long. $2^{\circ} 55' W$. No harb. authority. Used by

fishing boats and by vessels belonging to the Tranent Collieries. THW. f. and c. 2h 16m.

Official.—Owner, John Polson, Esq., Castle Leven, Greenock.

COLCHESTER, Essex. Lat. $51^{\circ} 52' N$; long. $0^{\circ} 49' E$. Pop. 28,374. Auth. Colchester Navigation

Improvement Commissioners, under Act 10 and 11 Vict., c. 281. P. NC. THW. (Colne Point) 12h; Sp. rise 14ft; N. rise 10ft; R. of N. 6ft. D. on bar. Sp. 10ft; N. 5ft; in channel HW. 18ft to 20ft. Bar dries at LW. It is at Colnemouth, some miles from Brightlingsea. W. Unaffected by winds. Ry. G.E. Tr.—

I. Grain, timber, &c.; E. Oysters and local produce. LV. One of H.M. vessels, 1,200 reg. ton. 160 reg. ton. at the Hythe; 300 reg. ton. at the entrance to Wivenhoe. Vessels of 200 tons can enter channel at LW. One 1-ton crane. Quayage at Hythe 1,485ft, and at Wivenhoe 430ft. Also a patent slipway at the latter place, taking vessels 120ft long, 20ft wide, and drawing 12ft.

Charges.—Harb. dues 1d to 1/6 ton, according to size. Coal dues 6d ton, payable by merchant; vessels bringing coal, half these rates. Ballast 1/ ton put on board.

Pilotage.—**District.** From a line drawn from the Naze Tower to the buoy of the Gunfleet, up the Colne river to Colchester, and *vice versa*. **Rates** (inward and outward). East buoy of Gunfleet to Eastness 2/6 foot; Eastness to Pyefleet 1/3; Pyefleet to Wivenhoe 1/6; Wivenhoe to the Hythe, Colchester 1/6. A pilot taken on board, or discharged from, a vessel to the eastward of the Priory Spit Buoy, is entitled to £1 in addition to the above rates. London pilots are to be paid from Orfordness to Eastness 6/ foot.

Towage.—As per agreement. Boarding Station at Brightlingsea.

Officials.—Clerk to Coms., Henry Goody; Channel Surveyor, (vacant); Harb. Master, W. Crosby; Coll. of Channel dues, T. M. Johnstone.

Hotels.—The "Cups," "Red Lion," and "George."

COLDINGHAM, near Berwick on Tweed. D. LW. at en. 20ft.

COLERAINE, Londonderry. On the Bann, 5m from the sea. Lat. 55° 10' N; long. 6° 43' W. Pop. 6,684. Auth. Harbour Commissioners, under Act, 1879. P. C. THW. 6h 24m; Sp. rise 6½ft; N. rise 4ft. D. on bar 10ft LWOST. W. prev. from W. to SW., most dangerous from NW. to N. Ry. B. & N.C. Tr.—I. Coal and general goods, coasting trade; E. Cattle and local produce. LV. 372 reg. ton. of about 14½ft dft. It was nearly HW. of ST. when this vessel crossed the bar. Accn. Good quays with about 250ft lin. and a depth at ST. 12ft, NT. 14ft.

Charges.—Port charges 6d reg. ton. Ballast as per agreement, usually 1/ ton.

Pilotage.—**District.** The river Bann. From the quays at town of Coleraine to an imaginary boundary line at sea running through a point northward of the mouth of the river, 1m from end of east pier at its mouth. **Rates.** Steamers 1/6 foot inwards, and 9d foot outwards. No printed return exists, and the Harb. Commissioners exempt from pilotage rates all vessels towed into the river by agreement with the owner of a steam tug.

Towage.—Inwards with cargo and out light 6d reg. ton, if with cargo 3d. No pilot is required when a tug employed.

Officials.—Sec. to Com., W. Eccles; Harb. Master, Edward Steele; Coll. of H.M. Cust., J. Harty.

COLISTON, Aberdeenshire. Lat. 57° 22' N; long. 1° 57' W. A small harb. Dry at LW.

COOMBE MARTIN, Devonshire. Lat. 51° 13' N; long. 40° 1' W. Auth. Owner, Sir C. Watson. There is an anchorage in 8 to 9 fms. THW. f. and c. 5h 50m.

Official.—C. M. Cole, Solicitor, 36, Essex Street, Strand, W.C. **CONNAH'S QUAY.**—See Chester.

CONWAY, Carnarvon, Wales. Lat. 53° 17' N; long. 3° 50' W. Ry. Chester & Holyhead. Accn. D. on bar 3ft LW., and 20ft HWST., affording entrance to vessels drawing 6ft at half tide. W. prev. N.W. to N. Auth. Town Council, under Prov. Order, 1878. THW. f. and c. 11h 30m.

Charges.—½d per ton anchorage. Quay dues 2d per ton.

Pilotage.—As may be agreed upon.

Officials.—Town Clerk, T. E. Parry; Harb. Master, Evan Evans.

Hotels.—“Castle,” “Erskine Arms,” “Blue Bell,” and “Harp.”

CORK, Munster. On the Lee, 15m from the sea. Lat. $51^{\circ} 47' 33''$ N; long. $8^{\circ} 15' 14''$ W. Pop. 100,000. Auth. Harbour Commissioners, under Statute 1 Geo. IV., c. 52, and by a recent enactment. P. NC. THW. f. and c. 4h 58m; Sp. rise 12 $\frac{3}{4}$ ft; N. rise 10ft. D. in river, Sp. 27ft, N. 24ft HW. Alongside the jetties there are 20ft at LW. and vessels of 23ft dft. can lie afloat at all times of tide at a portion of the deep-water quays. W. prev. The quays of Cork are sheltered from all winds; quays at Queenstown are exposed to S. and SE. winds. Rys. G. & S.W., Cork and Bandon, Cork and Macroom Direct; Cork, Blackrock and Passage. Tr—I. General; E. Grain, butter, provisions, live stock, whisky, porter, &c. LV. using the quays and discharging cargo are grain vessels, which come up to Cork and use the deep-water quays there. These enter the harb. and come up as far as Passage, which is 6 $\frac{1}{2}$ miles from Cork, at all states of the tide. From Passage to the quays of Cork they are brought up at or near HW. The following are some of the largest vessels which have discharged at the Cork deep-water quays, lying afloat at all states of the tide, viz. :—

Name.	Draught of Water.		Registered Tonnage.
	ft.	in.	
<i>s. Alicia</i>	22	9	1,839
<i>s. Potomac</i>	20	8	1,198
<i>s. Eclipse</i>	20	6	1,301
<i>Star of England</i>	21	0	1,570
<i>s. Eastburne</i>	21	6	1,508
<i>s. Iris</i>	21	6	1,433
<i>s. Panama</i>	21	0	1,367
<i>s. Le Charlotier</i>	22	0	1,449
<i>Rufus E. Wood</i>	21	0	1,405
<i>s. Dragon Fly</i>	21	0	1,134
<i>s. Lord Derby</i>	21	9	1,132

Cork Harb. is one of the most capacious and secure harb. in the British Islands. Water area at Cork between quays is 46 $\frac{1}{2}$ acres, with a maximum depth of 23ft at LWST. There is a timber wharf on piles, 200ft in length, at Penrose Quay, Cork, with 15ft at LW; a timber wharf on piles, 290ft long, at ballast quay, Queenstown, with 15ft at LW; timber wharves on piles at Victoria and Penrose Quays, Cork, total length 1,245ft, with a depth alongside of 20ft at LWST; a deep-water quay at Queenstown, affording a depth alongside of 24ft at LWST, 600ft long on river face; deep-water quay, at Cork, 660ft in length, with a depth alongside of 23ft at LWST; deep-water quay at Cork, 1,405ft in length, with a depth alongside of 20ft at LWST; landing-piers or quays for the use of passenger steamers and other small craft at Ballinacurra, East Ferry, Crosshaven, Kingaskiddy, and Blackrock; boat-harb. at Queenstown, with breakwater for shelter and accommodation for small boats. The river Lee is navigable for ships of the largest class for about 2 $\frac{1}{2}$ miles above Haulbowline to Passage West, whence the river channel to Cork is 5 $\frac{1}{2}$ miles long by 250ft

to 300ft wide, with 14ft depth at LWST. The quays along the river Lee are under the jurisdiction of the Harb. Commissioners. The greatest depth alongside quays in Queenstown Harb. at LW is 24ft at new deep-water quay. Altogether the quayage space is upwards of four miles in length, with a depth of from 7ft to 23ft at LW. Dry Docks, &c. :—

Name.	Length	Width	Depth of sill at OHW.
	ft.	ft.	ft.
Rushbrook Dry Dock	430	60	9
Do. Gridiron	130	28	13
Cumming's do. Carrigaloe	250	40	
Victoria Dry Dock, Passage West	365	82	19 to 21
Albert Treble Dry Docks, Passage West	221	54	16 to 19
	104	54	16 to 19
Water St., Dockyard Patent Slip	193	54	16 to 19
Harb. Comrs. Yard Patent Slip	250	38	
	240	35	

Charges.—Tonnage dues from $\frac{1}{2}$ d to 1/ per ton. Dues on goods.

Pilotage.—**District.** The river, harbour, and port of Cork, the southern or seaward boundary being a straight line extending from Poor Head on the east, to Cork Head on the west. Rates for all vessels, inwards or outwards :—

Vessels or Lighters.	To Queens-town In-wards.	From Queens-town Out-wards.	To Passage In-wards.	From Passage Out-wards.	To Cork In-wards.	From Cork Out-wards.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Under 80 tons	0 11 3	0 3 9	0 15 0	0 5 0	1 5 4	0 8 5
80 and under 120	1 1 1	0 7 1	1 3 5	0 7 10	1 13 9	0 11 3
120 " 160	1 8 2	0 9 4	1 17 6	0 12 6	2 3 2	0 16 8
160 " 220	1 17 6	0 12 6	2 6 10	0 15 7	2 15 0	0 18 9
220 " 300	2 16 3	0 18 9	3 11 3	1 5 0	3 16 3	1 11 3
300 " 400	3 5 8	1 1 10	4 3 2	1 8 1	4 15 8	1 14 4
400 " 500	3 15 0	1 5 0	4 13 9	1 11 3	5 10 0	1 17 6
500 " 600	4 2 6	1 10 0	5 1 3	1 16 3	6 0 0	2 2 6
600 " 700	4 10 0	1 15 0	5 8 9	2 1 3	6 7 6	2 7 6
700 " 800	4 17 6	2 0 0	5 16 3	2 6 3	6 15 0	2 12 6
800 " 900	5 5 0	2 5 0	6 3 9	2 11 3	7 2 6	2 17 6
900 " 1,000	5 12 6	2 10 0	6 11 3	2 16 3	7 10 0	3 0 6

And inwards—for all vessels and lighters 6/ to be added for every 100 tons or surplus fraction (not being less than 50 tons), of every 100 tons over 1,000 tons up to and including 2,000 surplus, and for every 100 tons, or like fraction of 100 tons 2,000 tons surplus, as far as a vessel of 5,000 tons inclusive and outwards—for all vessels and lighters 4/ to be added for 100 tons or surplus fraction (not being less than 50 tons), of 100 tons over 1,000 tons, up to and including 4,000 tons. The excess over 5,000 tons is not charged with pilotage either inwards or outwards. For every vessel or lighter, British

foreign, using a pilot, only within the limits in this table, coasters and colliers included:—

Vessels or Lighters.	Queens- town to Pass- age.	Passage to Queens- town.	Queens- town to Cork.	Cork to Queens- town.	Passage to Cork.	Cork to Pass- age.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Under 80 tons	0 6 0	0 4 0	0 9 0	0 6 0	0 6 0	0 4 0
80 and under 120	0 8 0	0 5 8	0 12 6	0 8 2	0 8 0	0 6 4
120 " 160	0 10 0	0 6 8	0 15 0	0 10 0	0 10 0	0 6 8
160 " 220	0 12 6	0 8 4	0 17 6	0 12 0	0 12 6	0 8 4
220 " 300	0 15 0	0 10 0	1 0 0	0 13 4	0 17 6	0 12 8
300 " 400	0 17 6	0 12 0	1 10 0	1 0 0	1 0 0	0 13 4
400 " 500	1 0 0	0 13 4	1 15 0	1 3 4	1 5 0	0 16 8
500 " 600	1 2 6	0 15 0	1 17 6	1 5 0	1 7 6	0 18 4
600 " 700	1 5 0	0 16 8	2 0 0	1 6 8	1 10 0	1 0 0
700 " 800	1 7 6	0 18 4	2 2 6	1 8 4	1 12 6	1 1 8
800 " 900	1 10 0	1 0 0	2 5 0	1 10 0	1 15 0	1 3 4
900 " 1,000	1 12 6	1 1 8	2 7 6	1 11 8	1 17 6	1 5 0

Add 2/6 for every 100 tons or surplus fraction (not being less than 50 tons), of every 100 tons over 1,000 tons, up to and including 4,000 tons surplus above 1,000 tons as far as a vessel of 5,000 tons inclusive. The excess over 5,000 tons is not charged with pilotage rate. The rates to and from Monkstown, and to and from the East Ferry, are the same as those to Passage; and the rates to and from Ballinacurra are the same as those to Cork. Vessels or lighters proceeding to Blackrock, or higher up, pay the same rates as to Cork, or lower down than Blackrock pay the same rates as to Passage. Pilot, in case of extra detention in the vessel or lighter, north of the southern limits of the port, to be paid 5/ per day in addition to his pilotage. Any pilot placing a vessel or lighter in any berth to which a harb. master objects, shall remove her without charge. No pilot is allowed to make terms; 5/ in addition to pilotage allowed for mooring.

Towage.

	Queenstown to sea; do Monk- stown or Pass- age; Passage to Cork; Pass- age to Monks- town, or <i>vice versa.</i>	Sea to Monkstown. or Passage or <i>vice versa.</i>	Queens- town or Monkstown to Cork.	Cork to Sea.	Queens- town to Ballina- curra.
Under 100 Tons	£ s	£ s	£ s	£ s	£ s
150 "	2 5	3 0	3 5	2 10	3 5
200 "	2 10	3 5	4 5	2 15	3 15
250 "	2 15	3 10	5 5	3 0	4 5
300 "	3 5	3 15	6 0	3 10	4 10
350 "	3 15	4 5	6 15	3 15	4 15
400 "	4 0	4 15	7 10	4 5	5 0
450 "	4 10	5 5	8 5	4 15	5 5
500 "	5 0	5 15	9 0	5 5	..
550 "	5 15	6 5	9 15	6 0	..
600 "	6 5	6 15	10 5	6 10	..
650 "	6 15	7 15	10 15	7 0	..
700 "	7 5	8 5	11 5	7 10	..
750 "	7 15	8 15	11 15	8 0	..
800 "	8 5	9 5	12 5	8 10	..
850 " .. ..	..	..	..	..	..
900 " .. ..	..	..	..	..	..
950 " .. ..	..	..	..	..	..
1000 " .. ..	..	..	..	..	..

10/ extra for every part of 100 tons over 1,000 tons on the above rates. Towage of steamers charged by their gross reg. ton. Tugs attending on steamers for the purpose of assisting them to steer up the river £7 per tide. Ships taking two tugs pay 1½ rates, unless when in distress, and then as per agreement. Tugs detained more than half an hour at vessel £2 per hour until under way, and then tariff as above.

Officials.—Sec. to Com., W. Donegan; Engineer, P. Barry, M.I.C.E.; Coll. of Harb. and tonnage dues, J. P. Lyons; Harb. Master, N. Sutton; Deputy Harb. Master at Queenstown, G. Usborne.

Hotels.—The "Imperial" and "Victoria."

COURTOWN, Wexford, Ireland. Lat. 52° 39' N; long. 6° 14' W. **Auth.** Commissioners, under Act 5 Geo. IV., 1824. **Accn.** Works are but in very indifferent repair, but it is in contemplation to effect several improvements. **D.** 2ft on bar at LWST. **W.** prev. SW., most dang. SE. A lifeboat station.

Charges.—Harbour dues, ½d per ton, 1/ per ton charged for cargoes landed from colliers lying outside; fishing boats pay £1 a year when laid up on slip during the winter, and £1 5s if left in harbour basin.

COVE, Berwickshire, Scot. Lat. 55° 58' N; long. 2° 18' W. **Auth.** Owner, B. F. Hall, of Cockburnspath. **Accn.** Stone piers. **D.** at HW. 20ft. **W.** prev. E and NE. **LV.** 300 tons.

COWES, Isle of Wight, Hampshire. On the Solent and river Medina. Lat. 50° 46' N; long. 1° 18' W. **Pop.** 7,000. **Auth.** Corporation of Newport, I. of W.; **P.** NC. **THW.** f. and c. 10h 45m, and 11h 45m.; **Sp.** rise 12½ft; **N.** rise 9½ft. **D.** on bar at LW. 10ft; **ST.** 22ft to 23ft; **N.** 18ft to 19ft. **W.** prev. SW by W.; most dangerous are N. and NE. **Rys.** Ryde, Newport, and Cowes. **Tr.**—I. Timber, grain, coals, &c.; **E.** Cement, stone, bark, &c. **LV.** The roadstead of Cowes affords a safe and sheltered anchorage for vessels of any tonnage. Vessels discharge at railway jetty about 300ft. in length. There are several patent heaving up slipways for vessels up to 1,500 tons. **Dry Docks, &c.**—

Name.	Extreme Length.	Breadth at en.	Depth on sill OHW.	Ht. of Tide.		Owner.
				Sp.	N.	
	ft.	ft.	ft.	ft. in.	ft. in.	
East:—						
No. 1, Gridiron	110	20	..	12 6	10 6	C. Hansen & Sons
" 2, "	90	25	..	11 0	9 0	
" 3, "	70	15	..	10 6	8 6	
Minerva Slip	700	40	..	12 6	10 6	J. S. White.
Falcon	380	40	..	14 0	8 0	
West:—						
Point Yard Slip						
No. 1	350	30	..	12 0	10 0	C. Hansen & Sons
Do. No. 2...	275	24	..	11 0	9 0	
Medina Dock & Patent Slip	331	56	16	12 0	9 6	
Slipway	300	40	27	12 0	9 6	J. S. White.
Marvins Slip	220	13	..	16 6	14 0	
No. 1	350	30	..	11 6	13 6 *	W. White & Sons.
Do. No. 2 ..	430	32	..	top of cradle.	17 0 †	
Patent Slip ...	250	25	..	top of cradle.	13 0	
				13 0	11 0	Inman & Co.

* Length of cradle, 100ft.

† Length of cradle, 70ft.

Charges.—Harbour dues : Under 50 tons $1\frac{1}{4}$ vessel, exceeding 50 and under 100 $2\frac{1}{6}$ vessel, over 100 $5\frac{1}{2}$ vessel. Ballast : in harbour $1\frac{1}{6}$, in roads, $2\frac{1}{2}$ ton.

Pilotage.—See Portsmouth.

Officials.—Town Clerk (Newport), R. Roach Pitts; Harb. Master, W. H. Lawrence; Coll. of H.M. Cust., W. Dear.

CRAIL, Fifeshire. Lat. $56^{\circ} 16' N$; long. $2^{\circ} 37' W$. At N; entrance to Frith of Forth. **THW.** f. and c. 2h 20m.

A lifeboat station.

CRAMOND, a creek of Leith, at the mouth of the Almond. **D.** HWST. 12ft, HWNT. 5ft.

CREETOWN, a sub-port of Dumfries.

CRINAN, at N. end of Crinan Canal, which extends from Ardrishaig to Crinan, 9 miles. **D.** on sill of lock 9ft, length of lock 94ft by 24 wide.

Official.—Superintendent, John Groves (see Ardrishaig).

CROICH Harbour. North Uist, Hebrides. Lat. $57^{\circ} 37' N$; long. $7^{\circ} 35' W$. A well-sheltered harbour.

CROMARTY, Cromarty, Moray Frith, a small harbour having a depth of 14ft at HWST., and 9ft at HWNT. inside, and anchorage in 22ft ST., and 18ft NT. outside. Area, 70yds by 40yds; 2 wharves; crane 3 tons.

Harb. Auth.—Trustees.

Charges.—2d ton reg., ballast $1\frac{1}{3}$.

Official.—Harb. Master, W. Mackay.

CROMBIE POINT, N. side of Forth 2 miles from Charlestown. **D.** HWST. 12ft, HWNT. 8ft.

Charges.—Harb. dues, 2d per ton.

Official.—Harb. Master, T. Ford.

CROMER, Norfolk. Lat. $52^{\circ} 46' N$; long. $1^{\circ} 19' E$. A fishing town and lifeboat station.

CROOKHAVEN, Co. Cork. Lat. $51^{\circ} 30' N$; long. $9^{\circ} 40' W$. **D.** from 3 to 5 fms at LWST.

Official.—Chief Coast Officer, W. Wright.

CULLEN, Banffshire, Scotland. Moray Frith. Lat. $57^{\circ} 41' 30' N$; long. $2^{\circ} 49' 30' W$. **Auth.** Harbour Board.

A small tidal harb. **En.** dry at LW. Used by vessels of 5 to 6ft draught. **W.** prev. N and NE. **THW.** f. and c. 12h 26m.

Official.—Harb. Master, K. McDonald.

CULMORE, Lough Foyle, Ireland.

Charges.—Same as Londonderry.

CUMBWICH, a creek under Bridgwater. **D.** HWST. 19 to 24ft, HWNT. 14 to 17ft.

DALBEATTIE, Kirkcudbright, Scotland. Lat. $54^{\circ} 53' N$; long. $3^{\circ} 48' W$. No **Auth.**, but an agreement amongst shippers to tax themselves to support quay and its roads, in conjunction with the Dalbeattie Road Trustees. **THW.** f. and c. 11h 30m. **W.** prev. SW. **Accn.** Harb. dries at low water; 9ft at HWST, with 10 $\frac{1}{2}$ ft at the Low Quay, which is about 500yds below the harb.

Officials.—Clerk, Alex. Wilson; Harb. Master, Wm. Cope-land.

Hotel.—"Donaldson's."

DARTMOUTH, Devon. Seaport. Lat. $50^{\circ} 20' 20'' N$; long. $3^{\circ} 33' 10'' W$. **Pop.** 5,725. **Auth.** Harbour Commissioners. **P.** NC. **THW.** f. and c. 6h 16m; **Sp.** rise

15ft; N. rise 10½ft. Ry. G.W. Tr.—I. Coal, salt, timber, fruit; E. Timber, coaling vessels, cider, &c. **Accn. En.** to harb. 220yds wide, opening into a safe and commodious harbour of considerable capacity for vessels of any dft. A pier with a depth of 20ft at **LW**.

Charges.—Harb. dues 3d reg. ton. for vessels discharging and ½d reg. ton. for windbound vessels, and ¾d per reg. ton on vessels coaling.

Pilotage.—District. From Bob's Nose to the Start and *vice versa*. **Rates.** For ships boarded without the Run of the Mewstone East, or the Blackstone West, to Dartmouth (inwards), 10ft dft. and under, 2/6, 10ft to 12ft 3/, 12ft to 14ft 3/6, 14ft to 16ft 4/, 16ft and upwards 5/ per foot, (outwards) two-thirds of these rates; steamships putting into Dartmouth harb. for coal only pay for pilotage in and out, the rate above provided for inwards only. If boarded within the above-named line they pay one-half these rates; if boarded within the Castle they pay one-quarter these rates, subject to the circumstances of weather, &c.

Ships boarded without the Run of Bob's Nose, or Berry Head, to Brixham or Torquay (inwards), 10ft dft. and under, 1/6, 10ft to 12ft, 2/, 12ft to 14ft, 2/6, 14ft to 16ft 3/, 16ft and upwards 3/6 foot, (outwards) two-thirds of these rates; if boarded within the above-named line one-quarter part less; if boarded half a mile only from the outer piers, vessels of all sizes pay 1/ foot dft.

The pilotage to Tor Bay is not compulsory, but should the master of any vessel choose to employ a pilot, the charge is two-thirds less than for Brixham and Torquay; vessels bound to Teignmouth with a Teignmouth pilot on board, and piloted from Tor Bay to Bob's Nose by a Dartmouth pilot, pay 1d foot.

Castle Line of steamers call fortnightly for mails and passengers. There are also two lines of steamers to W. Indies and S. America, and a German line to the Falkland Islands. Vessels of any tonnage coaled from hulks in centre of harb.

Towage.—In or out 2d reg. ton.

Officials.—Ry. Man. J. Davies; Harb. Master, W. C. S. Lewis; Coll. of H.M. Cust., W. L. Massy.

Hotels.—"Castle," "Royal Yacht," "Queen's" and "King's Arms," "Raleigh," &c.

DEAL, Kent. Lat. 51° 13' 30" N; long. 1° 24' 40" E. A maritime town of 9,050 inhabitants, and an increasingly popular seaside resort for summer visitors, situated between the N. and S. Forelands, opposite to and sheltered by the Goodwin Sands. An open beach with an iron pleasure pier. It is in contemplation to construct a harb. at this place, in front of land belonging to H. S. Chapman, Esq., for shelter to fishing vessels and for local trade. Sheltered from all but NE. and SE. winds. A lifeboat station. **THW.** f. and c. 11h 35m.

DERBYHAVEN.—See Isle of Man.

DEVONPORT.—See Plymouth.

DINGLE, Co. Kerry, Ireland. Lat. 52° 8' N; long. 10° 16' W. About 20m SW. of Tralee. A tidal pier with 3 to 4ft at **LW**. Owned by the Grand Jury of Co. of Kerry. Tr. Corn, coal, iron and earthenware. Suitable for small craft only.

Anchorage. D. HWST. 7 fathoms, HWNT. 6 fathoms.

Official.—Harb. Master, W. Collier.

DINGWALL, Ross-shire, Scotland. Frith of Cromarty. **Ry.** Highland and Sutherland. A fishing harb.

DONAGHADEE, Co. Down, Ireland. Lat. $54^{\circ} 38' 45''$ N; long. $5^{\circ} 32'$ W. 16 miles NE. of Belfast.

Ry. Belfast and Down. **THW.** f. and c. 11h 13m. **Auth.** Commissioners of Public Works in Ireland, under Act 1 Geo. IV., c. 113. **Accn.** Area about 16 acres at HW, and $6\frac{1}{2}$ at LW. **D.** at entrance LW. 12 to 14ft, and inside from 2 to 12ft, with $11\frac{1}{2}$ ft additional at HWST. Used by vessels up to 200 tons. Cranes to 3 tons power. **W.** prev. SSW., most dangerous SSE.

Charges.—None.

Officials.—Sec., W. B. Soady, Esq., Dublin; Harb. Master, William Cruse.

Hotel.—"Arthur's."

DONEGAL, Co. Donegal, Ireland. Lat. $54^{\circ} 40'$; long. $8^{\circ} 7'$ W. At the mouth of the Eask. **THW.** f. and c. 5h

18m. **Auth.** Quays belong to the Earl of Arran. **Accn.** Two quays with **D.** alongside of $7\frac{1}{2}$ to 11ft at HWST; **Sp.** rise 11ft and N. 8ft.

No Charges for quays.

Pilotage.—Doon Rock to Green Island $1/6$, Green Island to Quay 1/, out to sea $1/3$ per foot.

Officials.—Harb. Master, Alex. Kyle; Chief Coast Officer, R. Bell.

Hotels.—"Blain's" and "McGinty's."

DOUGLAS.—See Isle of Man.

DOVER, Kent. A seaport. Lat. $51^{\circ} 7'$ N; long. $1^{\circ} 18'$ E.

Pop. 30,270. **Auth.** Government Pier, Board of Trade; Harb. Dover Harb. Board, consisting of members appointed by the Admiralty, the Board of Trade. The S.E. and L.C. & D. Rys., and the Town. **P. C. THW.** f. and c. 11h 12m; **Sp.** rise 18 $\frac{3}{4}$ ft; **N.** rise 15ft. **D.** on bar at LT. is, ST. 18ft; **N.** 14ft. **W.** prev. SE. to SW.; most dangerous from SW. the L.C. & D. and SE. **Tr.**—I. Coal, timber, seed, &c.; E. Chalk, oil, oilcake, &c. **LV.** HMS. *Himalaya*. **Accn.** Tidal harb., 14 acres in extent, communicates with the Granville Floating Dock and the Wellington Dock. **En.** to tidal harb. is between two piers. **W.** of **E.** 140ft. Docks, &c. :—

Name.	Extent.	H. of T.		Width of Entrance.
		ST.	N.	
		ft.	ft.	ft.
Granville Dock	6 acres	22	...	69
Wellington	11 $\frac{1}{2}$	15	...	70
Patent Slip	600 ft. X 60 ft. ...	21	17	

Quayage space about 2,400ft. Extensive pier accn. Cranes to lift from 4 to 30 tons.

Charges.—Tonnage dues 3d ton, in ballast $1\frac{1}{2}$ d ton. Vessels using harb. tow-ropes pay 10/ per mast.

Pilotage.—See London District.

Towage.—Out of the harbour to the edge of the flood-tide, for vessels of 100 and under 200 tons £1; rising 5/ per 100 tons. If the steam is got up for a single vessel, a sum of £1 is charged over these rates. Vessels using the harbour tow-ropes 10/ mast.

Officials.—Registrar to Dover Harb. Board, J. Stilwell; Harb. Master, J. Durden; (Man. L.C. & D. Ry., M. Harris; Coll. of H.M. Cust., R. Henderson; Lloyd's Agents, Hammond & Co.

Hotel.—"The Lord Warden."

DOWNS, THE. A roadstead on the SE. coast, between Ramsgate and Deal, the Goodwin Sands forming a breakwater, and affording a valuable refuge from all but NE. and SE. winds. It is proposed to construct a harb. of refuge at Deal, so as to give perfect security from all winds.

DROGHEDA, Louth. On the river Boyne, four miles from the sea. Lat. $53^{\circ} 43' N$; long. $6^{\circ} 18' W$. Pop. 14,400. Auth. Port and Harbour Commissioners, under Act 5 Vict., c. 56. P. NC. THW. f. and c. 11h 45m; Sp. rise 11½ft; N. rise 9ft. D. on bar 6ft LWST. W. prev. SE. to W. They increase the height of the tides, but they do not form heavy seas; the most dangerous are from SE. to NE. Ry. G.N. (L.) Tr.—I. Timber, grain, coals, slate, salt, iron, and general goods; E. Cattle, horses, pigs, and agricultural goods. LV. Vessels of 17ft dft. have entered the river and arrived in their berths in the harb. on the same tide. Accn. The area of the harb. is 15 statute acres, with a quayside of 1,000yds in length on N. side, and 1,100ft on S. side (800ft lin. of which is not available to the public). Depth of water at quay Sp. 21ft; N. 14ft; medium 16ft. Good warehouse accn.

Charges.—Harb. dues, including deck cargo, 6d per reg. ton. Plankage 1/ each for discharge, 1/ each for ballasting or loading.

Pilotage.—District. From between Clogher Head and the Skerries to quays of Drogheda, and from quays to bay. Rates:—

Registered Tonnage.	No. 1. Vessels not having British Registers arriving from or sailing on a Foreign Voyage.		No. 2. Vessels with British Registers arriving from or sailing on a Foreign Voyage.		No. 3. Vessels, not Steamers, trading to or from a Port in the United Kingdom.	
	£	s. d.	£	s. d.	£	s. d.
30 and under 40	0	12 0	0	9 0	0	6 0
40 " 50	0	15 0	0	11 3	0	7 6
50 " 60	0	18 0	0	13 6	0	9 0
60 " 70	1	1 0	0	15 9	0	10 6
70 " 80	1	4 0	0	18 0	0	12 0
80 " 90	1	7 0	1	0 3	0	13 6
90 " 100	1	10 0	1	2 6	0	15 0
100 " 110	1	13 0	1	4 9	0	16 6
110 " 120	1	16 0	1	7 0	0	18 0
120 " 130	1	19 0	1	9 3	0	19 6
130 " 140	2	2 0	1	11 6	1	1 0
140 " 150	2	5 0	1	13 9	1	2 6
150 " 160	2	8 0	1	16 0	1	4 0
160 " 175	2	11 0	1	18 3	1	5 6
175 " 200	2	14 0	2	0 6	1	7 0
200 " 225	2	17 0	2	2 9	1	8 6
225 " 250	3	0 0	2	5 0	1	10 0
250 " 275	3	3 0	2	7 3	1	11 6
275 " 300	3	6 0	2	9 6	1	13 0
300 " 325	3	9 0	2	11 9	1	14 6
325 " 350	3	12 0	2	14 0	1	16 0
350 " 375	3	15 0	2	16 3	1	17 6
375 " 400	3	18 0	2	18 6	1	19 0
400 and upwards	4	1 0	3	0 9	2	0 6

Towage.—Vessels from foreign parts including deck cargo ton 6d; vessels to foreign parts in ballast 5d. Coasting vessels with cargoes or limestone 4d; coasting vessels in clay ballast or light 3d reg. ton. **NOTE.**—Should vessels from foreign parts, or coasters, sail in without the aid of the Commissioners' tugboat, the former shall be charged 6d ton, and the latter 4d ton outward towage. Minimum charge for towage £1.

Officials.—Sec. to Commrs., J. McNamara; Harb. Master, T. Durden; Coll. of H.M. Cust., R. Boyd.

DRUMORE, Wigtownshire, Scotland. Near Mull of Galloway.

Auth. Owner, the Earl of Stair. **Accn.** Dry at half tide. **D.** at HWNT. 8ft, and at HWST. 12ft. **W.** prev. SE. to SW. **THW.** 11h 15m. Used principally by local boats and windbound vessels entering at HW.

Charges.—Loading 2d per ton, windbound 1d per ton.

Officials.—Agent, T. C. Greig, of Stanraer; Harb. Master, W. McMillan.

Hotels.—"Queen's Arms" and "Commercial."

DUBLIN, Dublin. On the river Liffey, 7m from the Irish Sea. Lat. 53° 21' N; long. 6° 16' W. **Pop.** 414,597. **Auth.** Port and Docks Board, under Act 30 Vict., c. 81. **P. NC.** **THW.** f. and c. at Dublin bar (Poolbeg lighthouse) 11h 12m; Sp. rise 12 to 14ft; N. rise 9 to 11ft. **D.** on bar at LWST. about 15ft, and at the following docks as under:—

Name.	S.T.	N.T.
	ft.	ft.
Custom House Dock	16 to 17	13½ to 14½
Spencer	14	11
Grand Canal	16	13
Inner Channel of Harbour at LW.	12 to 13	12 to 14

W. prev. **W.** are SW. to NW., and most dangerous are from ENE. to SE. **Rys.** G.N. (I.); G.S. & W.; L. & N.W.; M.; G.W.; D.W. & W. **Tr.** (chiefly cross Channel)—I. Sugar, grain, ice, timber, merchandise, manure, &c.; E. Grain, manure, whisky, beer and porter, linen, merchandise, &c. Largest sailing vessel at HW. was *Donald McKay*, 2,500 reg. ton. 24ft dft. The *Great Eastern* lay alongside Northern Quays for a winter. This vessel discharged her cargo of 3,000 tons guano at the new works direct on the quay. The largest vessels that come up at LW. are steamers of 400 to 480 tons of 13½ft dft. The **En.** to the harb. between the North Bull and Poolbeg lighthouses is 1,000ft wide, and is formed by the channel of the Liffey, which is quayed on both sides through the city. The area available for shipping extends from the entrance of Alexandra Basin to Butt Bridge, and, inclusive of the Alexandra Basin, the Custom House, and the Royal and Grand Canal Docks, it is 205 acres in extent. The Alexandra Basin contains 50 acres of water, having a depth of 24ft at LW. over three-fourths of its area, and 2,355 lin. ft of quay wall, on the S. and W. sides, with 24ft in line of keel at LW. The Grand Canal Docks, on the S. side of the harb., have an acreage of 25 acres, and about 2,000 yards of quayside. George's Dock (inner) is 650ft long by 300ft wide, and (outer) 320ft by 250ft wide; W. of E. 36ft. The *Spencer Dock* (belonging to the Midland Ry. Co. of Ireland) has about one mile of quayside, is 26ft wide at entrance, and

THW. f. and c. oh 20m. **Accn. D.** on bar 8ft at LW. and 18ft at HWST. Area. Tidal river about 1 mile long by 300ft wide constitutes the harb. There is 1 dry dock and 2 tidal docks, all belonging to private firms. Harb. is used by vessels of up to 1,800 tons, but principally for shipbuilding, vessels of 5,000 being built.

Charges.—Rates on vessels entering, using or passing through the harb. of Dumbarton :

For every vessel of 100 tons (with the exceptions under specified per ton and under 200 tons).....per ton										0	2
21	21	200	21	500	21	.....	21	0	7	0	7
22	22	500	22	1,000	22	.....	22	0	9	0	9
23	23	1,000	23	1,500	23	.....	23	0	11	0	11
24	24	1,500	24	2,000	24	.....	24	1	1	1	1
25	25	2,000	25	2,500	25	.....	25	1	3	1	3
26	26	2,500	26	3,000	26	.....	26	1	8	1	8
27	27	3,000	27	3,500	27	.....	27	1	7	1	7
28	28	3,500	28	4,000	28	.....	28	1	9	1	9
29	29	4,000	29	4,500	29	.....	29	2	3	2	3
30	30	4,500	30	5,000	30	.....	30	2	9	2	9
31	31	5,000	31	and upwards	31	.....	31	3	0	3	0
For repairs under 2,000										0	2
of 2,000 tons and upwards										1	0
										0	6

All Vessels to be charged according to net register tonnage.

Pilotage.—Nil. (See Clyde dues (Glasgow) for pilotage charged by them on vessels coming into Dumbarton).

Officials.—Harb. Mast., W. Brown ; Supt., Donald Cameron.

Hotels.—"Elephant" Hotel and "Lennox" Temperance Hotel.

DUMFRIES, Dumfries-shire. On the river Nith, 10 miles from Solway Firth. Lat. 55° 1' N ; long. 3° 35' W. Pop. 17,090. **Auth.** River Nith Commissioners. **THW.** noon ; Sp. rise 6ft. **D.** at Dumfries, ST. 8ft ; NT. oft. Kingholm (1 mile seawards) ST. 10ft ; NT. 2ft. Glencaple (5 miles seawards) ST. 15ft ; NT. 7ft. Carsethorn (mouth of the river) ST. 18ft ; NT. 10ft. **Rys. Cal., G. & S.W. Tr.**—I. General merchandise ; E. Potatoes, seeds, and timber. The harb. is formed by the river Nith, and is about 4½ miles long. There are 1,014yds of wharfage provided by the various quays. Patent slip at Pohend, near Palnackie, taking vessels of 200 tons.

Charges.—Harb. dues, general merchandise 10d ton ; coals and lime 2d ton. Coaling vessels 2d reg. ton. Foreign 6d ton.

Pilotage.—District not defined. Rates to or from sea 3/ foot.

Towage.—There are no steamtugs belonging to the port ; vessels requiring towage make special agreement with owners of tugs at Maryport or Silloth.

Officials.—Harb. Master, G. Little ; Clerk to Commrs. and Coll. of Harb. dues, James Carmont.

DUNBAR, Haddingtonshire. Lat. 56° 0' N ; long. 2° 30' 40" W. Frith of Forth. **Auth.** Town Coun. under Act 11 and 12 Vict. c. 122. **Ry. N.B.** A lifeboat station. Difficult of access, but secure to shipping when in. **THW.** f. and c. 2h 8m. Dry at LW. Victoria Harbour. **D.** HWST. 18ft, HWNT. 14ft. Wharfage, about 600ft. Old Harbour, HWST 12ft, HWNT 9ft 6in.

Charges.—To or from foreign ports 4d per ton reg. ; coasters 3d.

Official.—Harb. Master, W. Smith.

DUNBEATH, Caithness, a sub-port of Wick. A fishing port.
D. HWST. 9½ft, HWNT. 6ft.

Official.—Pilot, James Sinclair.

DUNCANNON, Wexford, near Waterford. On the Suir.

Lat. 52° 13' 13" N; long. 6° 15' W. Stone piers belonging to the Government. James II. embarked here for France after the battle of the Boyne.

DUNDALK. On Castletown River, county Louth, Ireland.

Lat. 55° 38' 40" N; long. 6° 15' W. Pop. 12,000. Auth. Harbour Commissioners under Act 1885. P. C. for sail; N.C. for steam. THW. f. and c. 10h 56m; Sp. rise 15ft; N. rise 11½ft. D. on bar 3 to 4ft OST. W. prev. W. and SW.; most dangerous SE. Rys. G.N. (I), and D.N. & G. Tr.—I. Coals, iron, corn, bricks, slates, &c.; E. Cattle, butter, grain, ale, timber, &c. LV. a steamship of 800 reg. ton. No vessels enter the harb. at LWST. Accn. The channel at the town is about 300ft wide, and vessels lie alongside the quays partly waterbound; the length of channel in the inner harb. is about 9,000ft. There are numerous quays on the S. side of the channel, viz., George's, Brown's, Martin's, Duffy's, and William's. There is a patent slipway 400ft long × 40ft wide; R. of T. ST. 15½ft; NT. 9ft; and good warehouse accn. Crane power up to 15 tons.

Charges.—Mooring buoys 50% off published rates.

Pilotage.—District. For inward pilots. From an imaginary line drawn straight from seaward end of Dunany Point to seaward end of Cooley Point, to Dundalk quays. For outward pilots. Quay to bar or lighthouse. **Rates:**—

Registered Tonnage.	No. 1. Vessels with British Registers Arriving from or Sailing on a Foreign Voyage.		No. 2. Sailing Vessels, Trading to or from a Port in the United Kingdom.	
	£	s. d.	£	s. d.
30 and under 40 tons	...	0 9 0	0 6 0	
40 " 50 "	...	0 11 3	0 7 6	
50 " 60 "	...	0 13 6	0 7 6	
60 " 70 "	...	0 15 9	0 9 0	
70 " 80 "	...	0 18 0	0 12 0	
80 " 90 "	...	1 0 3	0 13 6	
90 " 100 "	...	1 2 6	0 15 0	
100 " 110 "	...	1 4 9	0 16 6	
110 " 120 "	...	1 7 0	0 18 0	
120 " 130 "	...	1 9 3	0 19 6	
130 " 140 "	...	1 11 6	1 1 0	
140 " 150 "	...	1 13 9	1 2 6	
150 " 160 "	...	1 16 0	1 4 0	
160 " 175 "	...	1 18 3	1 5 6	
175 " 200 "	...	2 0 6	1 7 0	
200 " 225 "	...	2 2 9	1 8 6	
225 " 250 "	...	2 5 0	1 10 0	
250 " 275 "	...	2 7 3	1 11 6	
275 " 300 "	...	2 9 6	1 13 0	
300 " 325 "	...	2 11 9	1 14 6	
325 " 350 "	...	2 14 0	1 16 0	
350 " 375 "	...	2 16 3	1 17 6	
375 " 400 "	...	2 18 6	1 19 0	
400 and upwards	...	3 0 9	2 0 6	

Ballast pilotage on coasting vessels outwards :—

						£	s.	d.
30 and under 60 tons	...	...	...	...	...	0	5	0
60 " 80 "	...	...	...	...	...	0	7	6
80 " 100 "	...	...	...	...	...	0	10	0
100 " 120 "	...	...	...	...	...	0	12	6
120 " 130 "	...	...	...	...	...	0	16	6
130 " 140 "	...	...	...	...	...	0	17	6
140 " 150 "	...	...	...	...	...	0	19	0
150 " 160 "	...	...	...	...	...	1	1	0
160 " 170 "	...	...	...	...	...	1	2	0
170 " 180 "	...	...	...	...	...	1	3	0
180 " 190 "	...	...	...	...	...	1	4	0
190 " 200 "	...	...	...	...	...	1	5	0
200 " 250 "	...	...	...	...	...	1	6	0
250 " 300 "	...	...	...	...	...	1	7	0
300 and upwards	...	...	...	...	...	1	10	0

Vessels arriving with a cargo from a foreign voyage and leaving in ballast pay two-thirds of inward pilotage.

Towage.—Coasters 4d ton; Foreign 6d ton.

Officials.—Sec. to Harb. Commrs., J. F. Farrell; Harb. Master, A. Hughes; Coll. of H.M. Cust., T. Ploughman.

Hotels.—"Queen's Arms" and "Imperial."

DUNDEE, Forfar. On the Firth of Tay, 10 miles from the North Sea. Lat. 56° 28' N.; long. 2° 58' W. Pop. 155,000. **Auth.** Harbour Trust, under Act 1875. **P. C.** THW. f. and c. 2h 32m; Sp. rise 14½ft; N. rise 11½ft; R. of N. 8½ft. D. on bar is 17ft below LWOST. Vessels drawing less water usually take the bar in ordinary weather at any state of tide; larger vessels have to wait for sufficient water. **W.** prev. W. and SW. There are no dangerous winds at the harb. On the bar of the river the most dangerous wind is E. **Rys.** Cal. and N.B. **Tr.**—I. Timber, iron, flax, hemp, jute, lime, guano, esparto grass, grain, flour, coals, blubber, &c.; E. Linen, sailcloth, sacking, grain, timber, paper, yarns, coals, &c. **LV.** which have arrived during the past 10 years (previous to that time vessels coming to this harb. were of a smaller class):—*Great Victoria*, 2,278 tons; *Morning Star*, 2,377 tons; *Cuba*, 2,500 tons, *Arara*, 2,601 tons, drawing from 21 to 24ft of water. The above are all sailing ships. Several large steamers have been built at, and sailed from the port, amongst them being the steamship *Merton Hall*, 2,646 net reg. ton., which was built at Dundee, and sailed with coals, drawing 24ft 10in. She loaded up in the Roads. The present harb. **Accn.** (outside the docks) is 4½ acres in the West Tidal Harb., that is at the entrance to the W. or older docks, and about three-quarters of an acre in the East Tidal Harb., that is, at the entrance to the E. or newer docks. A deep water loading wharf has been recently erected, where vessels partially discharge. The depth alongside is 19ft at LW. The docks, with areas and depths over the sills, are as follows :—

Name.	Area.	Width of Entrance.	Depth.	
			LWO. ST.	HWO. ST.
	acres	ft.	ft.	in.
Oldest Dock, King William the Fourth	6½	39	...	14 6
Second do. Earl Grey	5½	55	2 6	17 0
Camperdown Dock	8½	60	7 0	21 6
Victoria Dock	11	60	7 0	21 6

Graving Docks, &c. :—

Name.	Length.	Width.	Depth of Sill OHW.
	ft.	ft.	ft.
East Graving Dock	513	53	20
Patent Slip	500	44	...
West Graving Dock	287	38½	13½

There are two large warehouses ; also steam hydraulic and hand cranes up to 70 tons, and hyd. jiggers for unloading jute. The present area of accommodation within the docks for ships and boats is 31 acres.

Charges.—Tonnage rates, foreign 4d to 1¼ reg. ton. ; coasting, 2d to 3d ton ; river 1d and 1½d reg. ton., and 1/ and 2/ voyage. Miscellaneous rates. Rates on goods. Lighting and buoying rates 1½d on all vessels entering or leaving the harb.

Pilotage.—**District.** The limits within which vessels can be piloted by the pilots licensed by the Trustees, are from six miles outside of the Fairway buoy at the entrance to the river Tay, up the river as far as Invergowrie on the north, and Balmerinoch on the south side of the Tay. **Rates.**—*Foreign.*—I. Inwards : for vessels from foreign boarded not more than 3 miles outward of the Fairway buoy, or at any point between that distance and the said buoy, and from thence to and including any point or place within the docks of Dundee or Broughty Ferry and Tayport Harb., 3/10⁰ per foot, according to the draught of water. Outwards : for vessels to foreign, boarded at any point or place within the docks of Dundee or Broughty Ferry and Tayport Harb., and discharged at the buoy of Tay 3/10⁰ per foot. II. Inwards : for vessels from foreign, boarded as above, and discharged in the roads 2/5⁰ per foot. Outwards : for vessels to foreign, boarded in the roads and discharged at the buoy of Tay per 2/5⁰ per foot. III. Inwards : for vessels from foreign, boarded above Broughty Castle, to and including the docks of Dundee or Broughty Ferry and Tayport Harb. 1/4½ per foot. Outwards : for vessels to foreign, boarded in the docks or Broughty Ferry and Tayport Harb. and discharged in the roads 1/4½ per foot. *Coasting.*—IV. Inwards and outwards : for vessels coasting, boarded and discharged as in No. I. 2/9 per foot. V. Inwards and outwards : for vessels coasting, boarded and discharged as in No. II. 2/2½ per foot. VI. Inwards and outwards : for vessels coasting, boarded and discharged as in No. III. 1/1⁰ per foot. Vessels boarded at Tayport and discharged in the docks at Dundee, or boarded in the docks at Dundee, and discharged at Tayport, are charged 1/5½ per foot. During the months of Oct., Nov., Dec., Jan., Feb., and March in each year, the rates are as follows :—I. 4/5⁰ per foot ; II. 3/1⁰ per foot ; III. 1/4½ ; IV. 3/3⁰ ; V. 2/9 ; VI. 1/1⁰. In addition to the above rates ¼d per ton is chargeable on the excess tonnage of all vessels above 500 tons reg. In the event of vessels having to stop in Carolina roads for want of water in the docks at Dundee, or otherwise, the pilot shall be entitled to leave the vessel ; but if the master of the vessel desire to retain him on board till she can enter the harb., he shall intimate such desire to the pilotmaster, who will decide whether that can be done. In the former case, full pilotage rates shall be exigible, but another pilot will, when required, be appointed to bring the vessel into the harb. without any charge beyond the ordinary pilotage

rates ; in the latter, besides these rates, ten shillings shall be payable for each day or part of a day any pilot shall be so detained, in name of river fees ; and in the case of outward bound vessels requiring similar service, the charge for river fees shall be the same. All vessels inward bound, boarded beyond the distance of three miles from the buoy of Tay, and not exceeding six miles, to pay ten shillings and sixpence additional for distance money ; and vessels boarded six miles beyond the said buoy of Tay to pay fifteen shillings of distance money. In case of dispute the distance shall be ascertained by the bearings of the different headlands when the vessel was boarded.

Towage.—Minimum charge for sea towage £2 10/, and for harb. towage 20/. **Rates Inwards** including docking (with second tug if necessary): Outside No. 3 Black Buoy, and under 6 miles outside Fairway Buoy 4d reg. ton. From No. 3 Black Buoy and below Newcome Buoy 2d reg. ton. From Newcome Buoy or inwards, under weigh or at anchor 1½d reg. ton. When two tugs are required for docking a vessel, the second tug shall receive out of the above rates one third the total charge for towage from Newcome Buoy. When more than two tugs are necessary, the charge shall be as above for the first two tugs, and the rest shall be paid by the vessel, each one-third towage rates from Newcome Buoy. **Rate Inwards** (by two or more tugs, including docking with same) first tug 3d ; each additional tug 2d reg. ton. All tugs to be paid by vessel. **Outward Rates.** For loaded vessels, half of inward rates. For vessels in ballast, one-third of inward rates. Towage to Tayport not ex. 150 tons £1 10s ; ex. 150 and not ex. 200 tons £1 5s ; ex. 200 and not ex. 300 £1 10s. ; ex. 300 tons £2. Shifting docks, not ex. 200 tons £1 ; ex. 200 and not ex. 300 tons £1 ; ex. 300 and not ex. 400 tons £2 ; ex. 400 and not ex. 600 tons £2 10s ; ex. 600 and not ex. 800 tons £3 ; ex. 800 and not ex. 1,000 tons £3 10s. ; ex. 1,000 £4. Attending launches, same rates as shifting docks. **Rate for hawsers**, not ex. 500 tons, river £1, sea £1 10s. ; ex. 500 and not ex. 1,000 tons, river £1 10s, sea £2 ; ex. 1,000, river £2, sea £2 10.

Officials.—Sec. to Harb. Trust., A. E. Gray ; Harb. Master, Capt. C. Yule ; Treas., J. Watson ; Engineer, D. Cunningham ; Coll. and Surv. H.M. Cust., D. P. Williams ; Lloyd's Surv., J. Rae.

DUNDRUM, Co. Cork. In Dundrum Bay. Lat. 55° 13' 10" N ; long. 5° 40' W. D. on bar, HWST. 20ft, HWNT. 16ft, and at quays, 11ft at S. and 7ft at NT.

Official.—Harb. Master, W. Quinn.

DUNFANAGHY, Co. Donegal. Lat. 55° 10' N ; long. 8° W. Quay dries at LW. Used by vessels drawing 8ft.

DUNGARVAN, Co. Waterford. Lat. 52° 4' 27" N ; long. 7° 53' W. THW. f. and c. 5h 12m. D. HWST. 16ft, HWNT. 13ft.

Official.—Harb. Master, P. Curran.

DUNMANUS HARBOUR, Co. Cork. Lat. 51° 30' N ; long. 9° 50' W. D. 13ft in centre of harb., but a dangerous place, and only suited for hookers.

DUNMORE East, Co. Waterford, Ireland. Lat. 52° 9' N ; long. 6° 59' W. W. side of entrance to river Suir. THW. f. and c. 5h 27m. A good harb. with D. 8 to 14ft LW., and 21 to 27ft HW. Quayage 820ft of deep water quays and

300ft of quays. Dry at LW. A lifeboat station. Auth. Board of Public Works, Ireland.

Charges.—2d per ton on coal, salt, &c., with special charges on cattle and other goods delivered at harb.

Pilotage.—See Waterford.

Officials.—Harb. Mast., T. Dunn; Pilot Mast., Capt. Kennedy, of Passage East; Supt. of Works, J. Donovan.

Hotel.—"Dunmore."

DUNURE, Ayrshire. Lat. $55^{\circ} 25' N$; long. $4^{\circ} 46' W$. Two dilapidated piers dry at LW. D. 6ft. at HW.

THW. f. and c. 11h 48m.

DUNVEGAN, Isle of Skye, Hebrides. Lat. $57^{\circ} 28' N$; long. $6^{\circ} 32' W$. A sheltered but not commodious harb. **THW.** f. and c. 6h 7m.

DYSART, Fifeshire. N. side of Frith of Forth. Lat. $56^{\circ} 7' 15'' N$; long. $3^{\circ} 7' 15'' W$. Ry. N.B. **THW.** f. and c. 2h 30m. Auth. Town Council. Accn. En. to harb. 60ft wide. D. 10ft at HWNT., and 14ft HWST. Dry at LW. Dock 200ft by 180ft, with quayage 600ft. En. 37ft wide. Used by vessels up to 200 tons. There are three shoots for shipping coals and a slipway 29ft wide.

Pilotage.—1/ per foot.

Charges.—Dock charges 3d per ton on vessels to or from foreign ports, and 3d per ton on coasters; harb. dues 1½d per ton.

Officials.—Provost, Andrew Terrace; Harb. Master, John Harrow; Collector of Customs, Jas. Urquhart.

Hotel.—"Royal Townhead."

EARNMOUTH, a creek of Perth. D. HWST. 14ft, HWNT. 10ft.

EASEDALE, I. of Jura, Hebrides. A small harb. for vessels engaged in the slate trade.

EASTBOURNE, Sussex. An open beach and fashionable watering place.

EDAY, Orkney Islands. Lat. $59^{\circ} 10' N$; long. $3^{\circ} 5' W$.

EDEN WATER.—See Guardsbridge.

EDINBORO'.—See Leith.

ELGIN.—See Lossiemouth.

ELIE, Fifeshire. Lat. $56^{\circ} 11' N$; long. $2^{\circ} 50' W$. A small tidal harb. protected by a sea wall, and a pier 845ft in length. Auth. Owner, W. Baird, Esq., of Elie, under provisions of statute 20 and 21 Vict., 1857.

ELLEN PORT, Islay, Hebrides. Lat. $55^{\circ} 37' 10'' N$; long. $6^{\circ} 12' 40'' W$. There is an anchorage in $3\frac{1}{2}$ fms. entrance through rocks.

ELLESMERE PORT, River Mersey. Used by vessels of 100 to 300 tons entering at HW., and by tugs and barges belonging to the Shropshire Union Railways and Canal Co. Auth. Shropshire Union Railway and Canal Co., under their Act of Parliament. **THW.** f. and c. 12 o'clock. D. at HW. 10 to 22ft. Area 5 acres. LV. 500 tons. Cranes: 32 hydraulic and 31 hand cranes of various powers up to 10 tons.

Officials.—S. Reay, Sec. L. & N. W., Euston Station, London. J. Platt, Harb. Master. T. Hales, Manager, Chester.

Hotels.—The "Dock," "Bull's Head," and "Railway."

ELY, Glamorganshire. —See Penarth.

EMSWORTH, Portsmouth. D. HWS. 15ft, HWN. 9ft.

Official.—Harb. Master, H. Miller.

There is a small slipway.

ERIN PORT.—See Isle of Man.

ERISKA PORT, I. of South Uist. Lat. $57^{\circ} 5' N$; long. $7^{\circ} 15' W$. Situated in a loch of the same name.

A good harb. for small vessels.

ESSIE, Banffshire.—See Port Essie.

EXETER, Devonshire. On the Exe. Nine miles from the sea. Lat. $50^{\circ} 40' N$; long. $3^{\circ} 27' W$. Pop. 47,150.

Auth. Mayor, Aldermen and Citizens. **P. NC.** **THW.** at Exmouth 6h 21m; Sp. rise $12\frac{1}{2}$ ft; N. rise 8 $\frac{1}{2}$ ft. **D.** Exmouth Bar and Bight, ST. 20ft, NT. 14ft; Topsham Quay, ST. 12ft, NT. 8ft; Turf, ST. 14ft, NT. 10ft; Exeter Bar, ST. 13ft; Basin, ST. 18ft; Town Quay, ST. 10ft. **Rys.** G.W. and L. & S.W. Tr.—I. General; E. Ground barytes, timber, &c. **LV.** Vessels of 400 tons can reach the city of Exeter, where there is a large floating basin connected with Exmouth by a canal five miles long, 13ft deep, and 30ft wide. Vessels must lighten to 12ft before entering canal. Cranes to lift 20 tons.

Charges.—Harb. dues $1\frac{1}{2}$ vessel. Canal dues $4\frac{1}{2}$ d reg. ton; $2\frac{1}{2}$ d reg. ton in addition for horse trackage. Buoyage and town dues, ballast, 1/- per ton f.o.b.

Pilotage.—District. From Lyme to Bob's Nose, and *vice versa*.

Rates. Coasters.—For ships in and over Exmouth Bar, to the moorings in the Bight at Exmouth, and out again over the bar.

Inwards:—	s. d.	Ex. 150 and not ex. 175 tons	s. d.
Not ex. 60 reg. tons.....	1 9 foot dft.	175 tons	4 3 foot dft.
Ex. 60 and not ex. 80 tons	2 0 "	" 200 "	4 9 "
" 80 "	2 3 "	" 250 "	6 0 "
" 90 "	2 9 "	" 300 "	7 0 "
" 100 "	3 3 "	" 350 "	7 9 "
" 125 "	3 9 "		

Ships from foreign parts. For ships in and over Exmouth Bar, to the moorings in the Bight at Exmouth, and out again over the bar. Inwards:—

Not ex. 80 reg. tons.....	s. d.	Ex. 200 and not ex. 250 tons	s. d.
Ex. 80 and not ex. 100 tons	3 0 foot dft.	250 tons	6 3 foot dft.
" 100 "	3 9 "	" 300 "	7 9 "
" 120 "	5 0 "	" 350 "	9 0 "
" 150 "	5 6 "	" 400 "	9 9 "

And 1/- foot for every 100 tons additional.

Outwards, one-half these rates. A deduction of one-third of the inward pilotage to be made on vessels not boarded outside the Fairway buoy. All ships carried up from the Bight at Exmouth to the Sands $3\frac{1}{6}$; back $3\frac{1}{6}$. All ships under 100 tons, carried up to Topsham Quay $13\frac{1}{2}$; back $13\frac{1}{2}$. All ships under 100 tons carried up to Turf $9\frac{1}{2}$; back $9\frac{1}{2}$. All ships upwards of 100 tons carried up to Topsham Quay $13\frac{1}{2}$; back $13\frac{1}{2}$. All ships upwards of 100 tons carried up to Turf, ton $1\frac{1}{2}$ d; back $1\frac{1}{2}$ d.

Towage.—Sea to Bight $3\frac{1}{2}$ d, out 3d, return 6d; sea to Turf $4\frac{1}{2}$ d, out 4d, return $7\frac{1}{2}$ d; sea to Topsham 5d, out $4\frac{1}{2}$ d, return $8\frac{1}{2}$ d; Bight to Turf 3d, out $2\frac{1}{2}$ d, return 5d; Bight to Topsham 4d, out $3\frac{1}{2}$ d, return 7d.

Officials.—Clerk, B. Gidley, M.A.; Coll. of H.M. Cust. and Surv., A. Scott; Harb. Master and Wharfinger at Exeter, A. Clements; Harb. Master at Exmouth, S. E. Bowden.

Hotels.—“Rougemont,” “London,” “Clarence,” “Half Moon,” and “Queen’s.”

EXMOUTH (see Exeter), Devon. A lifeboat station. Docks for fishing boats up to 80 tons. **Auth.** Dock Co., under Exmouth Docks Act, 1864. **W.** prev. **W.**, most dangerous **SE.** or **WSW.** **THW.** f. and c. 6h 2m. **LV.** 200 tons at **HW.**
Official.—Sec., H. C. Adams.

EYEMOUTH, Berwickshire, Scotland. Lat. $55^{\circ} 52' 25''$ N; long. $2^{\circ} 5' W$. Situated at the mouth of the Eye, 5 miles from Berwick. **Auth.** Harb. Trustees, under statute 2 Vict., c. 36, and Provisional Order July, 1882. **THW.** f. and c. 2h 15m. **D.** dry at **LW.**; 12 to 18ft at entrance **HW.**; and 11ft at berths. Used chiefly by small vessels up to about 160 tons. Good quays. A lifeboat station.

Charges.—Coastwise $4\frac{1}{2}$ d. Beyond Fraserboro' and Humber, $6\frac{1}{2}$ d, foreign 8 $\frac{1}{2}$ d.

Pilotage. From 30 to 50 tons reg., summer rates 1/, winterrates 1/2.
Officials.—Clerk, John Wood; Harb. Master, James Paterson; Measurer, John Dickson.

Hotels.—"Ship" and "Royal" on quays.

FALLIN, Creek of Alloa. **D.** **HWST.** 11ft, and **HWNT.** 6ft.

Charges.—Harb. dues 1/ per mast.

FAHY HARBOUR, Galway, Ireland. Lat. $53^{\circ} 55' N$; long. $9^{\circ} 58' W$. Dry at **LW.** at entrance. Good security inside for vessels drawing up to 12ft.

FALMOUTH, Cornwall. Seaport. Lat. $50^{\circ} 9' N$; long. $5^{\circ} 4' W$. **Pop.** 12,131. **Auth.** Harbour Commissioners, under a Provisional Order of 1870, and Docks Company, the latter having jurisdiction over the tidal harb. within the breakwater, and the graving docks. **P. C.** **THW.** f. and c. 4h 57m; **Sp.** rise 16ft 6in; **N.** rise 9ft 6in. **W.** prev. **SW.** to **W.**; most dangerous **SE.** to **E.** **Ry. G.W. Tr.**—**I.** Wheat, barley, maize, guano, nitrate of soda, manures, coals, timber, grain, flour, bricks, slates, &c.; **E.** Granite, paper, hemp and wire rope, copper ore, china-clay and stone timber, granite, pilchards, fire-bricks, &c. **LV. Borderer**, 4,740 tons. The outer harb. is a capacious and secure anchorage. Vessels of the heaviest draft can enter at all times of tide. The tidal harb. is formed by two piers or breakwaters, the entrance is 1,000ft wide between the pier heads. The **E.** breakwater is 900ft long, and has 23ft at **LWST.** along its wharves, and 18ft on the **W.** side of the tidal harb. Area of tidal harb. 42 acres, with 2,000ft lin. of quayside space. Falmouth Docks include two graving docks owned by the Falmouth Dock Company, with iron and wood shipbuilding and repairing yards, and extensive warehouses for storage of goods. Cranes to lift 1 to 5 tons, and a large one to lift 40 tons.

Charges.—Anchorage dues $\frac{1}{2}$ d. per ton reg., payable twice only in each year. Windbound vessels exempt.

Graving Docks, &c. :—

Name.	Length.	Width.	Depth of Water OST.	H. of T. outside.	
				ST.	N.
No. 1	350	50	14	14	11
No. 2	537	71	22	20	16 $\frac{1}{2}$
Patent Ship	100	25	—	10	6

Pilotage.—**District.** From the Dodman to the Lizard, and *vice versa*. **Rates :—**

	8 ft and under.	8 to 10ft.	11ft.	12ft.	13ft.	14ft.	15ft.	16ft.	17ft.	18ft.	19ft.	20ft.	21ft.	22ft.	23'
A	s. d. 30 o	s. d. 35 o	s. d. 40 o	s. d. 45 o	s. d. 50 o	s. d. 55 o	s. d. 60 o	s. d. 70 o	s. d. 80 o	s. d. 90 o	s. 100	s. 120	s. 130	s. 140	s. 150
B	20 o	21 o	25 o	30 o	33 o	36 o	40 o	46 o	53 o	60 o	66	80	86	93	100
C	10 6	13 o	15 6	18 6	20 o	22 o	24 o	26 6	29 6	33 o	37	41/6	46 5/6	52/6	59

A From sea to within an imaginary line drawn from the lighthouse on St. Anthony's Point, to the Block House on Pendennis Point.

B From inside an imaginary line drawn from the Manacles to the Dodman, within an imaginary line drawn from the lighthouse on St. Anthony's Point, to the Block House on Pendennis Point.

C From inside an imaginary line drawn from the lighthouse on St. Anthony's Point, to the Block House on Pendennis Point, to Carrick Roads, Falmouth Inner Harb., St. Mawes Harb., and St. Just Pool.

From Sea to Helford Harb., 2/6 foot dft. For vessels exceeding 23ft, an increase for each foot or part of a foot, in the same proportion as between 22 and 23ft. From Carrick Roads, and *vice versa*, to Falmouth Inner Harb., St. Mawes Harb., and St. Just Pool, 1/6 foot dft. From Carrick Roads, and *vice versa*, to Restronguet 2/ foot dft. From Carrick Roads, and *vice versa*, to Malpas, 2/6 foot dft. Outward pilotage, 2/6 foot dft. The several Pilotage Rates herein specified are subject to a reduction of one-fourth part, in respect of vessels propelled by steam and vessels towed by steam vessels, provided that if any such vessel shall be propelled by steam, or towed by a steam vessel for a part only of the distance for which any such rate may be payable, the reduction of one-fourth shall be made on such part only of the said rate as shall be proportionate to the distance so propelled or towed. No vessel is to be brought to an anchor outside an imaginary line drawn from the Light House on St. Anthony's Point to the Block House on Pendennis Point, unless at the express desire of the master, of which the Pilot is to procure a certificate to entitle him to the pilotage; and no vessel is to be brought to an anchor between an imaginary line drawn from the Light House on St. Anthony's Point to the Block House on Pendennis Point, and an imaginary line drawn from the Block House on Pendennis Point to Carrick North Point, or between the buoys of the Narrows, unless under circumstances of unavoidable necessity. Pilots kept on board vessels under way outside the harbour, shall be entitled to the following scale of pay, viz:—

[illegible]

And so on in like proportion for such service; and pilots remaining on board vessels at anchor within the harb., when requested by the master thereof so to do, or detained on board of vessels performing quarantine, shall receive the same rate of pay for such detention. N.B.—No allowance for a pilot going on board a ship in the harb. to take her out, except in extremely bad weather, or when ships are on shore, or making signal of distress, in which cases a reasonable compensation is to be made.

Towage.—Inward or outward. 5/ for every 50 tons up to 1,000 tons, and 10/ for every 100 tons above 1,000 tons. Transporting in the harbour, docking or undocking, three-fourths of above-mentioned rates. Assisting to moor after first anchor is dropped £1, if the tug has not earned inward towage. If paid by time the rate is £2 per hour under ordinary circumstances.

Officials.—Clerk to Harb. Commrs., W. J. Genn; Harb. Master, R. Sherris; Dock Sec. and Supt., F. J. Bowles; Acting Dock Master, J. Tallack.

Hotels.—"Falmouth," "Royal," "Greenbank," &c.

FAREHAM, Hants. A creek of Portsmouth, taking vessels of up to 300 tons. D. HWST. 12ft, HWNT. 9ft.

Official.—Coll. of Dues, R. Pye.

FAVERSHAM, Kent. On the Swale, about 2 miles from the entrance to this river. Lat. $51^{\circ} 20' N$; long. $0^{\circ} 53' E$. Pop. 13,290. THW. f. and c. oh 30m. Auth. Faversham Nav. Com. by Act of Parliament, 5 Vict., c. 42. P. NC. Harb. dry at LW. Sp. average from 11 to 12ft; N. 8 to 9ft. W. prev. The harb. is protected from all winds. Ry. L.C. & D. Tr. —I. Timber, coal, iron, &c.; E. Grain, hops, cement, and wool. LV. 210 reg. ton.

Charges.—Harb. dues, loaded vessels above 10 reg. tons 5d ton inwards and outwards; under 10 tons 3d ton. Coals 6d ton. No dues on other cargoes.

Towage. Loaded $3\frac{1}{2}d$, light $2\frac{1}{2}d$ ton. Minimum 15/.

Officials.—Harb. Master, T. M. Attwater.

FETHARD, Co. Wexford. Lat. $52^{\circ} 5' N$; long. $6^{\circ} 50' W$. A fishing village near the mouth of the river Suir.

FELIXTOWE (see Harwich). Entrance 140ft wide. Length of South Quay about 600ft. Several steam cranes.

FELLING.—See Newcastle-on-Tyne.

FERRYPORT-ON-CRAIG.—See Tayport.

FINDHORN, Elgin, Scotland. 3 miles N. of Forres. Lat. $57^{\circ} 40' N$; long. $3^{\circ} 55' W$. D. HWST. 12ft. Herring fishery and small trade in corn. D. Dry at LW. THW. f. and c. 11h 59m.

Official.—Harb. Master, G. Ross.

FINDOCHTY, Banffshire, Scotland. Lat. $57^{\circ} 41' N$; long. $2^{\circ} 55' W$. Dry at LW. The fishermen of this place having subscribed £3,000 towards the formation of a harb., the Fishery Board have supplemented this amount, and constructed Harb. Works. THW. f. and c. oh 25m.

Official.—Harb. Master, J. Hord.

FISHBOURN.—See Ryde.

FISHERROW.—See Musselborough.

FISHGUARD, Pembrokeshire. Lat. $51^{\circ} 55' N$; long. $4^{\circ} 57' W$. No harb. authority. Nearest Ry., Haverford West, on G.W.R. Pop. about 1,700. THW. f. and c. 6h 56m. A lifeboat station. Invaded by the French in 1797, who landed and were taken prisoners by the inhabitants the same day. D. HWST 15ft, and HWNT 8ft at pier head. LWST. all dry, and LWNT. 3ft at pier head. Quays 500ft.

Charges.—3d per ton; culm and limestone 1d; vessels wind-bound $1\frac{1}{2}d$ per ton; ballast 6d per ton.

Official.—Harb. Master, W. G. Evans, Lifeboat Station.

FLADDA or PHLADDA HARBOUR, Isle of Skye.

Lat. 57° 34' N;

long. 5° 57' W. A safe anchorage in 10 to 4 fms.

FLEET BAY, Wigtonshire. Lat. 54° 48' N; long. 4° 15' W. Harb. has D. 14ft HWST. THW. f. and c. 11h 30m.

FLEETWOOD, Lancashire. On the river Wyre, near its entrance into Lancaster Bay. Lat. 53° 55' N; long. 3° 0' 20" W. Pop. 6,733. Auth. L. & Y. Ry. Co. and L. & N.W. Ry. (jointly the P. & W. Ry. Co.), under Statute 12 and 13 Vict., c. 74. P. NC. THW. 11h 24m; Sp. rise 27ft; N. rise 20½ft. D. on bar 35½ft at HWOST.; 28½ HWONT. Rys. P. & W. (L. & N.W. and L. & Y.). Tr.—I. Grain, cotton, timber, iron ore, esparto fibre, fish, cattle, &c.; E. Coal, coke, and general merchandise. LV. *Holt Hill*, 2,441 tons reg. En. to docks is through a channel with a depth of 25ft OST. Entrance lock 250ft long, 50ft wide, depth on sill 25ft OST., 18ft ONT. Dock 1,000ft long, 400ft wide; area 10 acres. Timber yard area 15 acres. Quayage space about 5,500ft. Total shed area 158,000 sq yds. One 50 ton, three 6 ton, three 4 ton, six 2 ton cranes; three coal tips. Goods warehouses, cattle sheds, &c. Patent grain elevator, and every accommodation for shipping. Patent lifting dock.

Charges.—Harb. dues, foreign 3d ton voyage, Wyre light dues 3d ton voyage. Coasting 1d ton voyage, Wyre light dues 1d ton each voyage for three voyages; Walney light dues 3d ton per year. Dock rates from 1½d to 10d. Charges for labour. Passenger tolls. Wharfage. Providing boats 10/.

Pilotage.—District. From sea (that is, Morecambe Bay Lightship) into and out of the harb. and along the coast from Formby Point to Haverigg Point of Dudden. Rates on vessels employed in the oversea trade :—

	Under 200 tons reg.	200 tons and under 600 tons reg.	600 tons and under 1,000 tons reg.	1,000 tons reg. and upwards.
	foot. s. d.	foot. s. d.	foot. s. d.	foot. s. d.
From within lines from Morecambe Bay Lightship to Formby Point and Haverigg Point respectively to Fleetwood and <i>vice versa</i> . . .	6 0	8 0	9 0	10 0
From within a line with Black Comb, bearing NNE., to Fleetwood, and <i>vice versa</i>	4 0	5 0	6 0	7 0
From Danger Patch Buoy, or one mile outside the outer lighthouse, to Fleetwood, and <i>vice versa</i>	3 0	3 6	4 0	5 0
From the outer lighthouse, or within one mile outside thereof, to Fleetwood, and <i>vice versa</i>	2 6	2 6	3 0	4
From inside the outer lighthouse to Fleetwood, and <i>vice versa</i>	1 6	2 0	2 6	3

On vessels employed in the coasting trade one-half of these rates. Additional rate, for intermediate portions of a foot dft., as follows, viz. :—For 3 inches and under, no addition; for more than 3 inches and under 9 inches, the medium between the two rates; for 9 inches and upwards, the rate for the next foot. For transporting ships from one berth to another within the harb. 10/6. If a master retain or employ a pilot whilst at anchor, the lay days to be 7½ per

day. All coasting steam vessels making more than one voyage per week pay half these rates.

Towage.—Coasting vessels to and from harb. to Screw Light 3d ton, minimum £2 2s. Foreign vessels, Fleetwood harb. to and from Danger Patch 3d ton, minimum £3 3s.; Fleetwood harb. to and from Screw Light £3 3s. Beyond Danger Patch Buoy, or beyond North West Buoy at rate of £3 3s hour. Towing from sea and docking same tide 3d ton. Assisting to dock ship towed by other than harb. tug 1½d ton.

Officials.—Sec. and Harb. Master, Thomas H. Carr; Marine Supt., Capt. Jackson; Dock Agent, J. N. Clarkson.

FLINT DOCK, Flintshire, Wales (see Chester). Lat. 53° 15' N; long. 3° 9' W. Situated on the estuary of the Dee. Ry. C. & H. **Auth.** Owners, Messrs. Muspratt Bros. & Huntley, Ltd., of Flint. **Accn.** The dock is the outfall of a brook trained into shape by being piled on either side. Area 300ft × 100ft. **D.** of water 5ft less than at Liverpool. Used by vessels drawing 12 to 15ft, entering at HW.

Charges.—By arrangement. Appliances for unloading 300 tons per day.

Hotels.—"Ship," "Royal Oak," "Swan," &c.

FOLKESTONE, Kent. Seaport. Lat. 51° 4' 40" N; long. 1° 11' 35" E. **Pop.** 18,816. **Auth.** S.E. Ry., under their Act of Parliament, 6 and 7 Vict., c. 51. **P.** NC. **THW.** f. and c. 11h 7m; **Sp.** rise 20ft; **N.** rise 16½ft. **D.** HWST. 39ft; LWST. 16½ft at SE. end of the pier. At pier heads **ST.** 19 to 21ft; **NT.** 10 to 14ft. There is no bar at the entrance to the harb. The harb. is dry at LW. **W.** prev. and most dangerous from S. to SW. **Ry.** S.E. **Tr.**—A large general Import and Export trade. **LV.** 342 tons, and the Co.'s ss. of 359 tons. The total area of existing harb. (inner and outer) is 12a 31p. The total quay space of inner and outer harb. is 405yds lin. The Company's passenger and goods steamers running the tidal services between Folkestone and Boulogne, use the new pier for landing and embarking purposes, when there is not sufficient water to permit of the boats entering or leaving the harb. Ships entering this harb. should not draw more than 12ft. There is a giridiron 181ft long × 30ft wide, also a slipway 450ft long. Cranes, sheds, &c.

Charges.—Harb. dues 2d reg. ton.

Pilotage.—See London District.

Towage.—10/ to 20/, according to size of vessel.

Officials.—Man. S.E. Ry., M. Fenton; Harb. Mast. and Supt., Capt. Boxer.

FORTROSE, Rosshire. Lat. 57° 30' N; long. 4° 10' W. Situated on the Moray Firth. Dry at LW. **THW.** f. and c. 11h 46m.

FORT WILLIAM, Inverness. S. end of Loch Linne. Nearest Ry. Station, Kingussie, on the Highlands & Sutherland Ry. **Auth.** Owner, Mrs. Cameron Campbell, of Monzie. **Accn.** A pier about 180ft long. **LV.** 99 tons.

FOSDYKE.—See Spalding.

FOSDYKE BRIDGE, on the River Welland, 8 miles below Spalding. **Auth.** The River Welland Outfall Trustees. **HW.** f. and c. 7h om. **D.** **ST.** 12 to 15ft. **LV.** Vessels up to 160ft in length can swing.

Charges.—River Welland dues, same as for Spalding.

Pilotage.—Clayhole, to or from, under 8ft 1/9 per foot, over 8ft / per foot. Steam tugs from Boston, ballast and silt free.

Officials.—Clerks, Messrs. Bonner & Calthrop, solicitors, palding; Harb. Master, John Kingston.

FOWEY, Cornwall. About midway between Falmouth and Plymouth. Lat. 50° 21' N; long. 4° 38' W. Pop. 1,800. **Auth.** Harb. Commissioners. **P.** NC. **THW.** f. and c. 5h 14m; Sp. rise 17ft; N. rise 12ft. **D.** ST. 36ft; NT. 30ft; LST. 18ft. **W.** prev. SW. and SSE. **Ry.** Cornwall Minerals. **Tr.**—I. Timber, coal, and limestone; E. China-clay, gunpowder, ironstone, &c. **LV.** 3,000 tons. The harb. is perfectly safe at all times of tide. There are railway jetties for shipping China clay, and three jetties with hydraulic tips and cranes.

Charges.—Harb. dues, discharging or loading 1d reg. ton, windbound ½d ton. Ballast 7d ton.

Pilotage.—**District.** From Looe, inclusive, to the Dodman. **Rates.** On vessels boarded within the Land off Looe, or the Dodman (which must be known by the Western land, called the Gray, being open of the Dodman), into the harb. of Fowey, Mevagissey Pier, Pentuan Basin, Charlestown Basin, or Looe: Vessels not exceeding 100 tons per register 2s foot, and 6d for every additional 50 tons. No pilotage to be charged for less than half a foot. On vessels boarded without the limits above defined 1/ foot, in addition to the foregoing rates, is chargeable. The pilotage outwards, from any of the said harb. to sea, is two-thirds of the foregoing, according to the vessel's then dft. of water. All vessels which anchor on their arrival, either in Mevagissey Bay, or the Sands of Fowey, pay one-half of these rates. All vessels, inwards, anchoring in Fowey Harb., and afterwards removed to Lew Roads, and all vessels outwards removed from Lew Roads and anchored in Fowey Harb., pay 1/ foot extra, if drawing 14ft of water, and 9d foot if drawing less than 14ft. Vessels removed from one of the above-named harb. to another, pay the same pilotage as if boarded within the headlands coming in from sea. A pilot taken on board at sea, is entitled to the following additional rate of pay:—If at three leagues without a line drawn from the Looe to the Dodman £3 3s. If at six leagues without a line drawn from the Looe to the Dodman £4 4s. If at ten leagues without a line drawn from the Looe to the Dodman £6 6s, and proportionately for intermediate distances. All coasting vessels, excepting limestone barges, piloted into the harb. of Looe pay 1d ton, new registry, and the same outwards. All limestone barges piloted into the harb. pay 2/6 each and the same outwards. Charge for use of boats and warps 5/ vessel.

Towage.—As per agreement.

Officials.—Harb. Master, W. H. Harman; Supt. H. M. Customs, H. Hicks; Lloyd's Agents, Lowry & Davis.

Hotel.—"The Harbour."

FOYNES, Co. Kerry. On the Shannon below Limerick. Lat. 52° 36' N; long 9° 5' W. **Auth.** Commissioners of Public Works in Ireland under Act 9 and 10 Vict., c. 86. **Accn.** Area about 3 acres. **LV.** 300 tons. **D.** Dry at LW. Springs rise 15½ft, neaps 12ft. **THW.** f. and c. 5h 35m. A good anchorage.

Official.—W. B. Soady, Sec. to Comm. of Public Works, Dublin.

FRASERBURGH, Aberdeenshire. Lat. 57° 41' N; long. 2° 0' W. **Ry.** G.N. of Scotland. **THW.**

f. and c. oh 40m. **Auth.** Commissioners under Fraserburgh Harbour Act, 1878, and Harbour Order, 1884. Harbour is protected by the Balaclava Breakwater and Pier 2, 265ft long, carried into 15ft depth LW. at end, and by a south breakwater in course of construction.

Name.	Width of Entrance.	Length of Quayage.	Depth.	
			HW.	LW.
Balaclava Tidal Harbour.....	85ft	3,900 ft	12 ft	9 ft
North Tidal Harbour	65 "	1,180 "	19 "	8 "
South Tidal Harbour	40 "	1,900 "	19 "	8 "

There is a steam crane lifting 30 tons. **LV.** 500 tons.

Charges.—Tonnage on vessels to or from foreign ports 8d, on coasting vessels 4d; windbound vessels, coasting, 1d; foreign, 2d.

Pilotage —		£ s. d.		£ s. d.	
30 to 50 tons	0	10	0	100 to 120 tons.....	1 0 0
50 " 60 "	0	12	0	120 " 150 "	1 3 0
60 " 70 "	0	13	0	150 " 200 "	1 10 0
70 " 80 "	0	14	0	200 " 250 "	1 15 0
80 " 90 "	0	16	0	250 tons and upwards	2 0 0
90 " 100 "	0	17	0		

Officials.—Clerk, Andrew Tarras; Harb. Master, George Mackay; Harb. Treasurer and Coll., John Cranna, junr.

FREMINGTON QUAY, Devonshire. **Auth.** L. and S. W.

Ry. Co. **Accn.** Tidal harb. about 900ft long, with quayage about 1,250ft. **D.** Dry LW.; 18ft HWST. Used by small vessels of about 100 tons discharging coals from S. Wales. Cranes lift from 2 to 10 tons.

Official.—F. J. Macaulay, Waterloo Station, S. W. Ry., London.

FRENCH PORT, Co. Mayo. Lat. 54° 15' N; long. 10° 3'

W. An anchorage for vessels drawing 12ft.

FROSCAVEG BAY, I. of Skye. Lat. 57° 23' N; long. 6°

26' W. A small pier harb., dry at LW.

GAINSBOROUGH, Lincolnshire. An inland port situated on

the Trent. Lat. 53° 24' N; long. 0° 45'

W. Ry. G.N. Steamers ply between this place and Hull, and it is in communication with many inland towns by means of canals. No harb., but vessels lie in the river. A wharf at Galthorp.

Official.—Burgess Constable, E. Pearson.

GALWAY, Co. Galway. On the Corrib. Lat. 53° 18' N;

long. 9° 5' 30" W. **Pop.** 14,800. **Auth.** Harb.

Commissioners under statutes 16 and 17 Vict. **P. NC.** THW. 4h 35m; Sp. rise 16ft; N. rise 11ft. **D.** in harb. ST. 18ft to 20ft; NT. 12ft to 14ft. **W.** prev. W. and SW. **Ry.** M.G.W. **Tr.**

General. **LV.** using the harb. are steam vessels, including H.M. gunboats, and all classes of sailing vessels. The largest vessel can enter the roadstead and lie there at anchor in safety. There are two wet docks with an area of 9 acres, which will accommodate vessels of 16ft dft.; these can enter at OST. There is also a pier about 115ft long, with a depth of 20ft at OST.

Charges.—Dues for roadstead 6d ton, new dock 8d ton.

Pilotage.—District. The Port of Galway is divided into two pilotage districts, one called the Outer, and the other the Inner.

The outer district extends from a line from Gulin Head, to the western point of the Arran Islands, and from thence to Heg's Head, and to the roadstead of Galway. The inner district extends

from the roadstead to the docks and quays. **Rates.** From a line

drawn between Black Head and Spiddal to the roadstead, and

vice versa: 50 tons and under 75 tons 12/6, and 2/6 additional for

every 25 tons. Half the above rate payable from the roadstead to the docks, and *vice versa*. A vessel taking a pilot at or outside Arran to the Black Head Line, or from Black Head Line to Arran Islands, by either Sound, pays 2/6 for every 25 tons reg., in addition to these rates.

Towage.—As per agreement.

Officials.—Sec. to Harb. Comms., R. Stephens; Harb. Master, L. Moore; Manager M.G.W. Ry., J. E. Ward; Coll. of H.M. Cust., J. Kearns.

GALTHORP, a wharf at Gainsborough.

GANNEL, a creek of Padstow. D. HWST. 21ft, HWNT. 12ft 6in.

GARDENSTOWN, Banffshire. Near Troup Head. Lat. 57° 40' N; long. 2° 20' W. Auth. Owner, Col. Francis Campbell, of Troup, under the Gardenstown Harbour Order, 1876. THW. f. and c. oh 30m. Accn. Harbour is of triangular shape, with WS. and E. quays, length of quayage being 1,669ft. D. Dry at LW., 11½ft HWST, and 9ft HWNT. W. prev. and most dang. N to NE. LV. 135 tons.

Charges.—3d per ton reg.

Pilotage.—4d per ton reg.

Officials.—Agents, Burnett & Reid, of Aberdeen. Harb. Master, Capt. J. T. Nicolson.

Hotel.—"Garden Arms" Hotel.

GARLIESTOWN, Wigtonshire.—Lat. 54° 45' N; long. 4° 20' W. THW. corresponds with time of Liverpool. Auth. Harb. Committee, without Parliamentary powers. W. prev. S and SE. Accn. Tidal harbour, dry at LW., with 18ft HWST, and 10 to 12ft HWNT. LV. 300 tons. Crane power to 5 tons.

Charges.—1½d per ton reg. on vessels discharging or loading, 1d per ton on vessels taking shelter. Dues on cargo landed: coal and lime 1d per ton, manures and feeding stuffs 3d, other goods from 1d to 1/8 per ton. Harb. boat 2/ to 10/ according to tonnage.

Pilotage.—5/ to 10/.

Officials.—Sec., J. Fingland; Harb. Master, Robt. Highet.

Hotels.—"Galloway Arms" and "Queen's Arms."

GARMOUTH, or Kingston, Morayshire. Lat. 57° 41' N; long. 3° 10' W. There are no harb. works. Ships lie in the estuary of the River Spey.

GARSTON DOCKS, Lancashire. On the Upper Mersey, 4 miles S. of the Liverpool S. Docks, and on the same side of the river. Auth. L. & N.W. Ry. Co., under Company's Acts of Parliament. The river is navigable for vessels up to 1,200 reg. ton. Ry. L. & N.W. Tr.—General I. and E., specially coals E. LV. Steamers of 1,995 reg. ton. and sailing vessels of 1,800 reg. ton. THW. f. and c. 12h om noon. Accn.:—

Name.	Area.	Width.	Length.	Depth over Sill.	
				ST.	TN.
Old Dock	acres. 6	ft. 50	ft. 270	ft. in. 25 0	ft. in. 17 9
New Dock.....	8	55	370	27 0	19 9

There is a gridiron 300ft long, situated so as to give vessels four

hours clear between the tides for repairs; hydraulic capstans; numerous cranes up to 40 tons' power; patent machinery for weighing cargoes; special facilities for shipment of coal, including eight high-level coal-tips, capable of tipping 1,000 tons each per day; about 113 acres of storage accommodation for goods; railway lines along docks and quays; more than 5,000ft lin. of quayage space.

Pilotage.—See Liverpool.

Towage.—See Liverpool.

Charges.—Dock dues, old dock 3d ton, new dock, 2d ton.

Officials.—Gen. Man., L. & N. W. Ry., G. Findlay; District Goods Man., E. Braide; Dock Supt. C. R. Jones.

Hotels.—"Garston" and "Wellington."

GATEHOUSE, or Port MacAdam, Kirkcudbright. Situated on the river Fleet, 3 miles above Wigton Bay.

Lat. $50^{\circ} 46' N$; long. $4^{\circ} 19' W$. **Auth.** Owner, H. G. Murray Stewart, Esq., of Cally, Gatehouse. A dry harb. The Fleet is navigable for vessels of 80 tons.

Charges.—Harb. dues 2d per ton.

Official.—James Campbell.

GATESHEAD.—See Newcastle-on-Tyne.

GERMAINS.—See St. Germain's.

GIGHA ISLAND, Argyleshire. Lat. $55^{\circ} 42' N$; long. $5^{\circ} 43' W$. There are 3 good anchorages on E.

side, Gigulam Sound being the best.

GILL, Westra Island, Orkneys. Lat. $59^{\circ} 18' N$; long. $2^{\circ} 58' W$. **THW.** f. and c. 10h 10m. **Auth.** Orkney Harb.

Commissioners, under Orkney Harbours Act, 1887. **Accn.** A harbour with a stone pier 300ft long, carried out to 20ft. **HWST.**, and 9ft **LWST.** Crane power to 3 tons.

Charges.—Harb. dues according to size 1d to 6d per ton.

Officials.—Clerk, J. Macrae, solicitor, Kirkwall; Harb. Master, W. Pottinger.

Hotel.—"Trenabie," N. Goldberg.

GIRVAN, Ayrshire. Lat. $55^{\circ} 12' N$; long. $4^{\circ} 50' W$. Situated at the mouth of the Girvan. Ry. G. & S. W.

THW. f. and c. 11h 45m. **Auth.** Commissioners, under Provisional Orders, 1865, 1867, and 1881. **Accn.** Area about 15 acres. Quayage about 2,100ft. **D.** on sill 1 to 3ft **LW.**, and 12ft **HWST.** Used by coasters and small steamers. Convenience for shipping coals.

Charges.—Same as Ayr.

Officials.—Clerk, Wm. Murray; Harb. Master, John Davidson.

Hotels.—"Queen's" and "King's Arms."

GLANDORE, Co. Cork. Lat. $51^{\circ} 33' N$; long. $9^{\circ} 5' W$. No Harb. **Auth.** **D.** **LW.**, 13ft.

GLASGOW, Lanark. On the Clyde. Lat. $55^{\circ} 52' 10'' N$; long. $4^{\circ} 15' 51'' W$. Pop. 730,000. **Auth.** Clyde Navigation Trustees. **P. C.** **THW.** f. and c. 1h 9m; **OSp.** rise 11ft 2in; **ON.** rise 9ft 2in; extreme R. of T. within the last two years 21ft 4in; duration of flood tide **OST.** 1880, 5h 44m; duration of ebb tide **OST.** 1880, 6h 35m; velocity of flood tide at Elderslie 5 miles from Glasgow Bridge **OST.** $1\frac{1}{2}$ statute miles, $\frac{1}{2}$ tide; velocity of ebb tide at Elderslie **OST.** $1\frac{1}{2}$ statute miles, $\frac{1}{2}$ tide. **D.** on bar in the river channel varies from about 13ft. in Glasgow Lower Harb. to 16ft at Port Glasgow **OLWST.** **W.** prev. are from SW., and together with NW. are the most dangerous. SW. winds generally cause high tides in the river, and E. winds and frost, low tides, often to

the extent of several ft higher or lower than the preceding tide. **Rys.** Cal., City of Glasgow Joint (N.B. & G. & S.W.), Glasgow and Paisley Joint (Cal. & G. & S.W.), G. & S.W., and N.B. **Tr.**—I. Grain, flour, timber, sugar, sulphur, hides, ores, oil, seeds, beef, pork, cheese, iron, &c.; E. Cotton, linen, woollen and jute manufactures, iron, copper, machinery, chemicals, coal, &c. **LV.** entering the Clyde 23ft dft. Glasgow is the chief port, and first commercial manufacturing city of Scotland. Its manufactures are unequalled for variety by any town of the United Kingdom, excepting London; it is the largest shipbuilding port in the world. **Accn.** The property of the Clyde Trustees is as follows:—Total length of quays of harb. and docks 10,624 lin. yds; area of water space 153½ acres; area of quays, roads, sheds, &c., 73½ acres; area of sheds 27 acres; area of timber yards, 17 acres; total area of lands, including quays, roads, yards, works, and properties belonging to the Trustees, but excluding all water space, about 230 acres. Kingston dock, a tidal basin, 5½ acres of water area, entrance, 60ft wide, general depth, 23 to 24ft at HWOST., total length of quayage, 830yds; quay space covers about 3½ acres, and is provided with goods sheds, portable steam cranes, and railway connections; the entrance is spanned by a swing bridge, opened and shut by steam power. Queen's Dock, a tidal basin or dock, having an outer basin 1,000ft long by 695ft at the widest part, a north basin, 1,866ft long by 270ft wide, and a south basin, 1,647ft long by 230ft wide, with a quay between, 195ft broad; entrance 100ft wide; total water area 33½ acres; general depth from 27 to 30ft at HW.; quay space, about 27½ acres; total length of quayage, 3,334yds. The north quay is reserved for coal and mineral traffic, and is provided with four 19-ton hydraulic cranes, two 35cwt. portable hydraulic cranes, and two 3-ton and two 5-ton portable steam cranes. The quay is provided with lines of rails in connection with the N.B. and Cal. Rys., and there are 21 hydraulic capstans for working the wagons at the cranes. The west quay is provided with a 30-cwt. portable hydraulic crane, and the centre quay with a 15-ton steam crane; the south and centre quays have goods sheds 60ft wide, and include several enclosed portions for transit purposes, searchers' offices, &c., the whole covering an area of nearly 7½ acres; the dock entrance is spanned by a swing bridge worked by hydraulic power; it connects the north-west and south quays, and carries road and railway traffic, the lines of rails extending all round the docks. The hydraulic power is provided by two pumping engines, one of 75 and one of 100-horse power, supplied by steam from four boilers and an accumulator, giving a pressure of 700lb per square inch in the mains. There are a customs, watch-house, dock master's and superintendent's offices, &c., and several 30-ton weighing machines for cart and wagon traffic are also erected on the quays; the quays and sheds are lighted with gas, and a water main is laid along the breast of the quays for water supply to vessels, and for fire extinguishing purposes. The area of water-space in Glasgow Upper Harb., opposite the quay, which is only on one side, and 505yds long, is about 14 acres, the depth near to the face of the quay being from 15 to 17ft at HW. The Lower Harb. has a water area of about 100 acres opposite the quays, and a depth of 24 to 27ft at HWOST. The total length of quays is 5,955yds. During the last 20 years the quays and wharves of the Lower Harb. have been extended down the river a distance of 1,512yds on the north side, and 525½yds on the south side. The quay space, amounting to about 39½ acres, is

provided with goods' sheds, lines of rail in connection with the Cal. and N.B. Rys., a 60-ton and a 75-ton steam crane, two 75-ton weighing machines, several 30-ton, 20-ton and 15-ton weighing machines for cart and railway traffic. The quays and roadways are causewayed, lighted with gas, and are provided with water supply for vessels, water troughs, drinking fountains, closet ranges, protection fencing, waiting-rooms at passenger wharves, and ferry landings; numerous warehouses, &c. Several canals connected with the port. Graving Docks, &c. :—

Name.	Length	Width.	Depth on Sill OHW.	H. of T.		Owner.
				ST.	NT.	
Kelvinhaugh Patent Slip	ft. 200	ft. 42	ft. —	ft. 5-8	ft. 3½-6½	Aitken & Manse
Do. ...	400	53½	—	—	—	—
Govan Graving Dk. No. 1	560	72	22½	8½-14½	7-13	Clyde Trust.
Do. No. 2	580	70	22½	11½	9½	Do.
Partick Dry Dock ...	500	54½	18	19	16	D.W. Henderson & Co.
Patent Slip ...	600	52	—	—	—	—
Pointhouse Patent Slip ...	850	57	—	13	9	A. & J. Inglis.

Cessnock Dock, in course of construction, will have an area of 38½ acres, and quayage of 3,786 lin. yds frontage.

Charges.—River rates. Rates on vessels crossing from the Forth and Cart Junction Canal to the river Cart 6d and 9d. Rates for swinging buoys 1d reg. ton. River and harb. rates, in or out 1½d per ton for coastwise vessels, and 4d per ton for foreign. Rates for use of planks 1/ per week, and rhones 1/ per week and 1d for every wagon loaded. Rates on animals and carriages shipped or unshipped in river or at harb. vary from ¼d to 1/6. Rates on goods 3d to 2/.

Pilotage.—District. Between Glasgow and Greenock. The pilots licensed by the board consist of two classes, viz :—River pilots licensed to pilot vessels between Glasgow and Greenock, and deep-sea pilots licensed to pilot vessels between Greenock and the Island of Little Cumbrae, including vessels proceeding outwards from Port Glasgow or inwards to Port Glasgow. In the case of steamers making trial trips to adjust their compasses, or for other such casual purposes, the owners, or persons in charge of such steamers, are entitled to take either river pilots, or, when going from Port Glasgow or Greenock, deep-sea pilots, in their option. **Rates.** From Greenock, or off Greenock, or the Tail of the Bank, to Glasgow; or from Glasgow to Greenock, or off Greenock, or the Tail of the Bank, including the unmooring of the ship, for all vessels under 10ft dft. 1/6; vessels with 10ft dft. and under 12ft 2/; vessels with 12ft dft. and not exceeding 15ft 2/6. All vessels exceeding 15ft. dft. 3/ foot. Vessels to and from Bowling Bay or Dumbarton are charged at two-thirds of these rates; and vessels from Renfrew or Dalmauir to Greenock or Port Glasgow, or from these two ports to Dalmauir or Renfrew, are charged the same rates as from Glasgow. Odd inches are charged in proportion. From Glasgow to Renfrew and *vice versa* 5/. From any place betwixt the Cumbrae and Cloch Lights to Greenock or Port Glasgow, including mooring the ship or waiting the tide, 1½d ton. From a line drawn between the Cloch light and Dunoon pier to Port Glasgow, or to any intermediate place ¾d ton. The same for like distances outwards. Fractional

tonnage charged in proportion. From Greenock, or off Greenock, to Garelochhead, and *vice versa*, including detention in swinging the vessel $\frac{1}{2}$ d ton, but no pilot is obliged to pilot a vessel to the Garelochhead and back for a less sum than 15/ each way. For every day the pilot is kept on board after the compasses are adjusted he is entitled to charge 7/6. For piloting vessels up or down the Leven, to or from Dumbarton, the pilots are not entitled to charge more than 4/ in addition to the rate for piloting such vessels on the Clyde, and 4/ for each additional tide he may be detained after the first. Any pilot, whether deep-sea or river, who may be detained at the request of the owner or person in charge of the vessel, after his duties as pilot have been completed, in addition to receiving his provisions, is to be paid 7/6 per day, and so in proportion for any lesser period. No differential rates are recoverable in respect of foreign vessels. Shifting vessels in harb., under 500 tons 7/6; 500 tons and upwards 10/. All vessels to and from Renfrew, Paisley Water, and Dalmuir, are charged the same as a shift, but if required to go more than once for the same vessel, the pilot to be paid for expenses every time after the first 2/6; attending launch 15/; and per tide detention 5/. Bowling and Dumbarton the same rates as to and from Greenock. Leven Pilotage.—All vessels under 100 tons reg. 5/; all vessels over 100 tons and under 500, 7/6; all vessels of 500 tons and upwards 10/; and per tide detention 5/. Steam vessels, when in the river, to remain as they are. All vessels towed to be allowed one-fifth of the full rates. Trial trips.—All vessels from 500 to 1,000 tons reg., per ton reg. 1 $\frac{1}{2}$ d, and for every additional 100 tons 5/, and for detention over 24 hours, per day 7/6. Gareloch Rate to remain as it is, but when a pilot is kept on board after compasses are adjusted he is entitled to 7/6 per day. Vessels under 500 tons reg. going on a trial trip £3. Detention money is charged only after the actual commencement of the service for which the pilot is engaged.

Towage.—Shifting Vessels. In harb. or towing to or from slip 20/; to or from Partick slip or docks 30/; in harb. or to slip under 1,000 reg. tons net 30/; in harb. or to slip above 1,000 tons and under 2,000 40/; in harb. or to slip above 2,000 and under 3,000, 60/ each tug; larger in proportion. In Port Glasgow 40/ each tug. Vessels for Glasgow towed from sea to Greenock or Port Glasgow, and stopping there to discharge cargo 1/ ton to Glasgow; or, at the option of the owner, the rate from sea and river towage, according to the light draught. River rates, reg. ton:—

Vessels' draught of water at the Broomielaw, according to Pilot's certificate.	From Greenock to				From Glasgow to			
	Port Glasgow.	Dumbarton or Bowling.	Paisley Water or Renfrew.	Glasgow.	Renfrew or Paisley Water.	Bowling or Dumbarton.	Port Glasgow or Greenock.	
Under 10 feet	d.	d.	d.	d.	d.	d.	d.	
10 10 11	3	4	6	7	3	4	7	
11 11 12	3	4	6	7½	3	4	7½	
12 11 12	3	5	7	8	3	5	8	
12 11 13	3	5	7	8½	3	5	8½	
13 11 15	3	6	8	9	3	6	9	
15 11 17	3	6	8	9½	3	6	9½	
17 11 19	3	7	9	10	3	7	10	
19 11 20	3	7	9	10½	3	7	10½	
20 and upwards	3	8	9	11	3	8	11	

Deep-sea Towing according to the distance towed, in addition to the river rates; if any transfer of the work is made after the vessel is towed in, from Bowling to Dumbarton, or *vice versa*, 3d ton. Vessels outward bound from Glasgow or Bowling, if towed beyond the Tail of the Bank, as follows:—

Vessels' Reg. Tonnage.	Tail of Bank to									
	Cloch.	Point of Toward, or Rothesay Bay.	Small Cumbrates or Garroch-head.	Lamlash.	Pladda.	Ailsa Craig.	Sunda or Corswall.	Mull of Kintyre or Port Patrick.	Rathlin or Mull of Galloway.	
Not ex. 200 tons	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	
Ab. 200 not ex. 300 "	3 0	5 0	7 0	9 0	10 0	13 0	15 0	18 0	23 0	
" 300 " 400 "	3 10	5 10	7 10	10 0	11 0	14 0	16 10	19 0	24 0	
" 400 " 500 "	4 0	6 0	8 0	10 10	11 10	14 10	17 10	20 0	25 0	
" 500 " 600 "	4 10	7 0	8 10	11 0	12 0	15 0	18 10	21 0	26 0	
" 600 " 700 "	5 0	7 10	9 0	11 10	12 10	15 10	19 10	22 10	27 10	
" 700 " 800 "	5 10	8 10	10 0	12 10	13 10	16 10	20 10	23 10	28 10	
" 800 " 900 "	6 0	9 10	11 0	13 10	14 10	17 10	21 10	25 0	30 0	
" 900 " 1,000 "	6 0	10 10	12 0	14 10	15 10	18 10	22 10	26 0	31 0	
" 1,000 "	7 0	11 10	13 0	15 10	16 10	19 10	23 10	27 0	32 0	

Larger £1 each 100 tons additional; Innistrathull and St. John's Point £10 in addition to Rathlin rates. Scows from Greenock to Glasgow and *vice versa* 6d ton; and between Bowling and Greenock 4d ton. All boats or wherries under 10 tons 5/. (See also "Greenock.")

Officials.—Gen. Man. to Clyde Trustees, G. Reith; Dock and Harb. Master, Capt. R. White; Coll. of H.M. Cust., J. Scott; Lloyd's Surv., W. T. Mumford, S. Laphorne, and J. Purdie.

The River Clyde, beyond Port Glasgow, is under the jurisdiction of the Clyde Lighthouse Trust.

GLASGOW PORT.—See Port Glasgow.

GLASSON DOCK.—See Lancaster.

GLENARM, Co. Antrim, Ireland. Lat. $54^{\circ} 57' N$; long. $5^{\circ} 57' W$. Nearest Ry. Station, Larne. **Auth.** The Eglinton Chemical Co., Ltd., of Glasgow. Pier 220ft long, D. 14ft to 19ft at HWOT. Area of harb. 7 acres. No dues. Used by Eglinton vessels only, except by permission of the official, Walter Jameson. There is a jetty with 90ft frontage belonging to the Antrim Iron Ore Co., D. 16 to 18ft. HWOT. Official for Jetty, F. Gendall. Most dangerous winds N., but harb. is well protected, except that vessels cannot lie alongside jetty with wind NW. or round by N. & E. to SE. The trade of the port amounts to 150,000 tons per year.

No Dues.—Used by vessels shipping lime.

Official.—Gen. Man., W. A. McDonald.

Hotel.—"Antrim Arms," Glenarm.

GLENCAPLE.—See Dumfries.

GLENGARIFF HARBOUR, Co. Cork, Ireland. Lat. $51^{\circ} 45' N$; long. $9^{\circ} 34' W$. Harb. will accommodate vessels drawing up to 25ft. **THW.** f. and c. 4h om.

GLOUCESTER.—See Sharpness.

GOOLE, Yorkshire. On the right bank of the Ouse, 27 miles above Hull; most inland port on E. coast. Lat. $53^{\circ} 40'$

N; long. $0^{\circ} 52' W$. **Pop.** 13,500. **Auth.** Aire and Calder Nav. (which extends to the principal inland towns of Yorkshire and Lancashire and the coalfields), under Statutes 1 Geo. IV., c. 39, and 9 Geo. IV., c. 98. **P. C. THW.** 7h 26m; Sp. rise 14ft; R. of N. 10ft. Vessels of 17ft to 18½ft dft. frequent the port at ST., and those of 12ft to 13ft at NT. **Rys.** L. & Y. and N.E. **Tr.**—I. Timber, grain, seed, olive oil, hemp, flax, iron, fruit, sugar, &c.; E. Coal, stone, machinery, earthenware, cotton and manufactured goods. **LV.** *Carl Hindric*, 1,067 reg. ton. **Accn.** :—

Name.	Length.	Depth.	Quay- age.	Depth HWST.
	ft.	ft.	ft.	ft.
Aldam Docks.....	466	387	1,548	22
Barge Dock	870	150	1,899	21
There are hoists for hauling up iron barges filled with 40 tons of coal and tipping the coal into vessels in this dock.				
Harbour Dock (with Timber Pond, 614ft x 322ft)	260	210	780	21
Branch Dock, No. 1	280	77	627	21
Railway Dock	620	200	2,100	22
Ship Dock	700	205	1,758	22
Steamship Dock	400	360	1,560	22

There is also a Dry Dock and a Patent Slipway.

Spacious sheds. Direct inland navigation with Midland districts. Extensive bonding warehouses and cellars.

Charges.—Dock dues 2d to 9d; vessels under 50 tons 5/ each. No dues on vessels coming or going through the Aire and Calder Nav. Harb. dues. Usual Humber dues, viz.—Whitton light dues 4d for every complete 10 tons of reg. ton. Buoyage, under 30 tons, 2/6, and 6d for every complete 10 tons additional reg. ton. Anchorage from 1/ from 20 to 44 tons, to 2/6 for 200 tons and upwards. Ouse improvement tolls 1d reg. ton.

Pilotage.—**District.** Into and out of the Port of Goole, and upon any part of the Humber between the said port and a certain part of Hull Roads. **Rates** per foot. For all ships and vessels, laden or light, piloted inwards from Hull Roads in the Humber, or from any part of the river above Hull Roads; or outwards from Goole, or upon any part of the Humber below Goole to Hull Roads as follows :—Not ex. 6ft 3/6; ex. 6ft and not ex. 8ft 4/; ex. 8ft and not ex. 10ft 4/6; 10ft and upwards 5/; coastwise, if piloted 2/6. For all ships and vessels, laden or light, piloted from Hull or from Hull Roads to any place below Oysterness or Ferriby Sluice, in the river 1/, and so in proportion for half a foot. For all ships and vessels, laden or light, piloted from Oysterness or Ferriby Sluice to Hull or to Hull Roads 1/6, and so in proportion for half a foot. All ships and vessels piloted from or to Oysterness or Ferriby Sluice pay, in addition to the above rates, the sum of 5/ per day for the detention of any pilot on board. Ships and vessels not drawing so much as 6ft deemed and considered as drawing 6ft and pay accordingly. **NOTE.**—The above charges for pilotage are now under revision, and will probably be considerably modified.

Towage.—Hull to Goole: Loaded vessels 6d; light vessels 4½d reg. ton each way. Through Goole Reach: vessels drawing above 9ft, 10/; vessels drawing 7ft and under 9ft, 7/6 smaller vessels 5/. Other distances as per agreement.

Officials.—Gen. Man. and Eng., W. H. Bartholomew ; Harb. Master and Supt. of Graving Dock, S. Wright; Resid. Agent of Trus. of Aire & Calder Nav. Co., W. E. Grayburn ; Coll. of H.M. Cust., R. Stavelly.

Hotel.—Principal hotel, the "Lowther."

GOREY.—See Channel Islands.

GOSPORT.—See Portsmouth.

GOURDAN, Kincardineshire. Lat. $56^{\circ} 48' N$; long. $2^{\circ} 19' W$. THW. f. and c. 3h om. **Auth.** Owner, James Farquhar, Esq., of Hallgreen. A small tidal harbour, dry at LW., with 15ft. at HWST. Quayage of 100ft. A lifeboat station.

Charges.— $1\frac{1}{2}d$ per ton.

Officials.—Agent, Patrick Dickson, of Laurencekirk, N.B. ; Harb. Master, Jas. Moir.

Hotel.—"The Commercial."

GOUROCK, Renfrew, Scotland. Lat. $55^{\circ} 58' N$; long. $4^{\circ} 30' W$. A small harb. on the River Clyde, belonging to the Caledonian Ry. Co.

Official.—James Thompson, Gen. Manager, Glasgow.

GRANGEMOUTH, Stirling. At the entrance of the Forth and Clyde Canal. Lat. $56^{\circ} 6' N$; long. $3^{\circ} 49'$. W. Pop. 5,000. **Auth.** Cal. Ry. Co., under Act, 1867. **P.** N.C. THW. f. and c. 2h 10m. **D.** at New Dock entrance 24ft when full. **W.** prev. are E. and W. Most dangerous are NW. gales. **Rys.** Cal. and N.B. **Tr.**—Large general I. and E. **LV.** sailing 1,499 tons ; steamer 1,450 reg. ton. Docks, &c. :—

Name.	Area.	Depth of Water on Sill OHW.
	acres.	ft.
Old Docks	8	—
New Dock	20	24
Entrance Lock	—	24
Timber Basin	24	—
Grangemouth Dry Dock	—	—

No vessel can enter at LW. of ST. Quayage space 3,217 lin. ft in New Dock ; quayage wall outside of entrance lock 583 lin. ft ; two timber jetties in dock 40ft long each. The average depth of River Carron is 22ft below HW. mark of OST. Total area of docks about 28 acres. Hydraulic and other cranes, hydraulic elevators, extensive shed and wharf Accn., and every modern appliance. Large timber ponds about 24 acres.

Charges.—Harbour, wharf, basin, and lamp dues.

Pilotage.—The harb. of Grangemouth and the pilotage limits for which the Cal. Ry. Co. are constituted the Pilotage Authority, includes all the docks, basins, locks, cuts, entrances, quays, and other works belonging to and authorised to be constructed by that Co. at Grangemouth, together with the portion of the river Carron specified in the Cal. Ry. (Grangemouth Harb.) Act, 1876, and the banks thereof, and the portion of the river Forth opposite the junction of the river Carron therewith, and extending for a distance of half a mile westward and two miles eastward from such junction. **Table of Rates.**—Maximum rates of pilotage. The rates of pilot-

age for every vessel piloted into or out of the harbour of Grange-mouth shall be as follows :—

SAILING VESSELS.		Per foot of th draught of wa- ter of the vesse- l at the time of entering or leaving the har- bour.
For Vessels under 100 tons register	£	0 1 0
" of 100 Tons and under 200 tons register	0	1 3
" of 200 " " 300 "	0	1 6
" of 300 " and upwards	0	2 0
STEAM VESSELS.		For each Steam Vessel inward or outward.
Under 200 tons register	£	0 10 0
200 and under 300 tons register	0	12 6
300 " 400 "	0	15 0
400 " 500 "	0	17 6
500 " 600 "	1	0 0
600 " 700 "	1	2 6
700 " 800 "	1	5 0
800 " 900 "	1	7 6
900 " 1,000 "	1	10 0
1,000 tons and upwards	1	12 6

EXTRA ATTENDANCE.

For extra attendance not exceeding 12 hours, when requested by Ship Masters (other than piloting), 3s.

Officials.—Gen. Man. Cal. Ry., J. Thompson; Harb. and Dock Master, Capt. J. Pollock; Coll. of Dock and Harb. dues, C. Bibb; Coll. of H.M. Cust., James Russell.

GRANTON, Edinburgh. On Firth of Forth. Lat. 55° 59' N.; long. 3° 15' W. Pop. 1,000. Auth. H.G. Duke of Buccleuch and Queensbury, K.T., under Statute William IV., c. 15, and Act 5 Vict., 1842. P.N.C. THW. f. and c. 2h 20m; Sp. rise 16ft; N. rise 12½ft; R. of N. 9ft. D. at LWST. in harb. 13ft. There is no bar. W. prev. blow from a SW. direction, and the NE. are most dangerous, but, as the water to seaward of the harb. is not particularly deep, and the Island of Inchkeith forms a breakwater, in that direction at a distance of between 4 and 5 miles, affording partial shelter, the sea is never so high as to prevent vessels entering the harb. **Rys.** Cal. and N.B. Tr.—I. Timber, iron, grain, esparto, pavement, cement, china clay, rosin, turpentine, bottles, bark, and live stock; E. Coal, iron, oil, machinery, castings, and general merchand se. **LV.** *Louisiana*, 1,642 reg. ton.; *Monte Rosa*, 1,587 reg. ton.; *Carligena*, 1,532 reg. ton. These ships are the largest which have arrived at the port with full cargoes. The *Seamen*, 765 reg. tons, is the largest vessel which has come to a discharging berth at LW. of OST. with a general cargo. **Accn.** There are no docks. The total area of the harb. (which is formed by two breakwaters, E. 2,840ft. and W. 2,987ft) is 129 acres, measured at HW., whereof 77 acres lie W. of the pier and 52 acres to E. Both the W. and E. breakwaters are carried into 13ft at LW. of ST., and the entrance between the heads is 340ft wide. A pier 200ft wide runs out

between the breakwaters for about 1,700ft. Hawthorn's Patent Slip, which can take vessels up to 1,400 reg. ton. is 260ft long, 40ft wide, with 13ft at ST., and 8ft at NT. There is good cranage accn., and every requisite of a first-class port. There are six coal tips, each loading about 110 tons per hour.

Charges.—Tonnage dues 2d to 9d reg. ton. Rates and dues as per schedule.

Pilotage.—District not defined. **Rates.** Same as Leith.

Towage.—As per agreement.

Officials.—Gen. Supt. of Harb., J. Howkins, C.E.; Coll. of H.M. Cust., A. J. W. Cameron.

GRAVESEND, Kent. On the S. side of River Thames. 20 miles SE. from London, and opposite Tilbury Docks. Vessels wait here for tide to come up to London. **THW.** f. and c. 1h 10m.

GT. GRIMSBY.—See Grimsby.

GT. WESTERN DOCKS, Millbay.—See Plymouth.

GT. YARMOUTH.—See Yarmouth.

GREENFIELD, River Dee. 3 miles above Mostyn (see Chester).

GREENHITHE, River Thames. Ry. N.K. There is a pier at this place, used by vessels loading lime.

GREENOCK, Renfrew. On the Firth of Clyde. Lat. $55^{\circ} 57'$ N; long. $4^{\circ} 44'$ W. **Pop.** 77,000. **Auth.** Harbour Trust, under the Greenock Harbours Acts, 1866 and 1880. **P. NC.** **THW.** oh 8m; Sp. rise 10ft; N. rise $8\frac{1}{2}$ ft. **W.** prev. NW. to SW. **Rys.** G. & S.W. and Cal. **Tr.**—I. Sugar, timber, grain, cotton, hemp, iron, oil, fish; E. Refined sugar, coal, iron, and machinery. **LV.** Largest vessels afloat, 32ft sill. James Watt Dock only dock with gates on river. **Accn.** There is every accn. for shipping, hydraulic cranes, warehouses, &c.

Harbs.: Old Works:—

Name.	Water Area	Quay Area	Quay Line.		Dimensions.				Dpt.	
			Inside	Out-side	E. side	W. side	N. side	S. side	HW.	LW.
	acres.	sq. yd.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.
West	7 $\frac{1}{2}$	21,822	3,410	1,100	180	460	800	1,100	20	
East India ..	6 $\frac{1}{2}$	25,404	2,660	1,200	440	150	1,040	1,250	20	
Victoria ..	5 $\frac{1}{2}$	20,466	1,870	400	550	550	400	520	23	14
Albert	10 $\frac{1}{2}$	28,755	2,750	1,250	420	450	1,000	1,000	23	14

Dry to 12ft.
2 to 12ft.
..

New Works:—Garvel Basin (tidal): quays, 2,480ft; depth along south-west pier, 35ft HW. for 600ft. James Watt Wet Dock: 32ft on sill; 2,000ft long by 300 to 350ft wide; central jetty; length of quays 6,400ft; grain stores. Great Harbour (tidal): 3,230ft long by 60ft wide, 35ft deep HW. when completed. The Greenock docks and piers are approached direct from the deep channel of the Frith. The new works present the feature of an "always afloat" dock, hitherto unknown on the Clyde; the James Watt Docks eastern and western entrances being closed by

Kinipple's caissons, and keeping in 32ft water at ordinary spring tides. Crane power up to 70 tons. Graving Docks, &c.:—

Name.	Length.	Width.	Depth of sill OHW.
	ft. in.	ft. in.	ft. in.
West Graving Dock	220 9	33 11	9 9
East ditto	360 7	38 0	11 10
Garvel ditto	635 0	60 6	20 0
Caird's ditto	238 0	45 0	13 0
Scott's ditto	360 0	48 0	14 6
Patent Slip	500 0	40 0	...

Charges.—Harb. rates. Foreign, divided into 6 classes, from 4d to 1/1 per ton covering in and out. River craft, coasting vessels, steam, for repairs, &c., in distress, exceptional, time, miscellaneous rates. Trimming charges, 2d to 6d ton. Rates on goods, sugar 10d, grain and flour 5d.

Pilotage.—District. Between Greenock and the Island of Little Cumbrae, including vessels proceeding outwards from and inwards to Port Glasgow. **Rates.** See Glasgow. P. NC.

Towage.—

From Greenock to—(or *vice versa*).

Vessels' reg. tonnage.	Tail of Bank	Cloch.	Point of Toward or Kothsay Bay.	Small Cumbraes or Garroch-head.	Lamlash.	Phadda.	Ailsa Craig.	Sanda or Corwall.	Mull of Kintyre or Port Patrick.	Rathlin.
	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.
Not ex. 200 tons ...	2 10	3 15	6 5	8 10	11 10	13 0	16 0	18 0	21 0	26 0
Ab. 200 not ex. 300 ..	3 10	4 10	7 0	9 0	12 0	13 10	16 10	18 10	22 0	27 0
" 300 " 400 ..	3 10	5 0	7 10	9 0	12 10	14 0	17 0	20 0	23 0	28 0
" 400 " 500 ..	4 0	5 10	8 0	10 0	13 0	14 10	17 10	21 0	24 0	29 0
" 500 " 600 ..	4 10	6 0	8 10	11 0	14 0	15 10	18 10	22 0	25 10	30 10
" 600 " 700 ..	5 10	7 0	9 10	12 0	15 0	16 10	19 10	23 0	26 10	31 10
" 700 " 800 ..	6 10	8 0	10 10	13 0	16 0	17 10	20 10	24 0	28 0	33 0
" 800 " 900 ..	7 10	9 0	11 10	14 0	17 0	18 10	22 0	25 0	29 0	34 0
" 900 " 1,000 ..	8 10	10 0	12 10	15 0	18 0	19 10	23 0	26 0	30 0	35 0

Larger, £1 per 100 tons additional. Innistrathull and St. John's Point £10 in addition to Rathlin rates. Light vessels from Greenock to Ardrossan and Troon, to load:—

Vessels' Reg. Tonnage.	From Greenock to Ardrossan.	From Greenock to Troon.	From Tail of Bank to Ardrossan.	From Tail of Bank to Troon.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Not ex. 100 tons	4 10 0	5 10 0	4 10 0	5 0 0
Ab. 100 & not ex. 150 ..	5 0 0	5 10 0	5 0 0	5 10 0
" 150 " 200 ..	5 10 0	6 0 0	5 10 0	6 0 0
" 200 " 250 ..	6 0 0	6 10 0	6 0 0	6 10 0
" 250 " 300 ..	6 10 0	7 0 0	6 10 0	7 0 0
" 300 " 400 ..	7 10 0	8 0 0	7 0 0	7 10 0
" 400 " 500 ..	9 0 0	10 0 0	8 0 0	8 10 0
" 500 " 600 ..	10 0 0	11 0 0	8 10 0	9 0 0
" 600 " 700 ..	11 0 0	12 0 0	9 10 0	10 0 0
" 700 " 800 ..	12 10 0	13 10 0	10 10 0	11 0 0
" 800 " 900 ..	13 10 0	14 10 0	11 10 0	12 10 0
" 900 " 1,000 ..	14 10 0	15 10 0	12 10 0	13 10 0

Larger, £1 for every 100 tons.

Officials.—Gen. Man. and Sec., T. Wilson; Traffic Man., J. MacCunn; Coll. of Harb. dues, D. Darroch; Harb. and Dock Master, J. Baillie; Coll. of H.M. Cust., T. Charlton.

The River Clyde is under the jurisdiction of the Clyde Light-house Trust.

Hotels.—"Tontine" and "White Hart."

GREENORE, Louth, Ireland. Lat. $54^{\circ} 1' 55''$ N; long. $6^{\circ} 7' 52''$ W. **Auth.** L. & N.W. under the Dundalk, Newry and Greenore Ry. Co.'s Acts of Parliament of 1863, 1867, 1869, and 1873. **Accn.** Area about 5 acres. **D.** 13 to 17 ft at LW. Chiefly used by the L. & N.W. Ry. Co.'s boats carrying cargo and passengers.

GREENWICH, River Thames. Port of London. 5 miles below London Bridge on S. side.

Official.—Sec., S. Reay, Euston, London.

GREER'S QUAY, Co. Louth, Ireland. Lat. $54^{\circ} 5' N$; long. $6^{\circ} 10' W$. Nearest railway station, Omeath, one mile distant. **THW.** f. and c. 12h om. **Auth.** Owner, A. F. Campbell, Esq., J. P., of Warrenpoint. **W.** prev. SW. A tidal harb. with a pier 300 ft long, dry at LW. and with 15 ft HWST. Used by coasters of about 75 tons reg.

Charges.—Dock dues 2d per ton.

Official.—Harb. Master, Matthew Woods.

GREYSTONES, Co. Wicklow, Ireland. Lat. $53^{\circ} 8' N$; long. $6^{\circ} 5' W$. A small place, with a pier belonging to the Grand Jury of Co. Wicklow. No dues.

Official.—Sec., E. N. Wynne, Wicklow.

GRIMSBY, Lincolnshire. On the Humber, 6 miles above Spurn Point. Lat. $53^{\circ} 32' N$; long. $0^{\circ} 5' W$. **Pop.** 28,500. **Auth.** M.S. & L. Ry. Co. **P. C.** **THW.** f. and c. 5h 36m; Sp. rise 10½ ft.; N. rise 15½ ft. **W.** prev. SW. to NW.; the most favourable for vessels entering the port are from NE. to SE. **Rys.** M.S. & L. and G.N. **Tr.**—I. Timber, iron, cotton, grain, seed, tar, oil, hemp, sugar, fruit, and general goods. E. Coal, salt, machinery, Manchester and other Midland goods, earthenware, cotton, &c. **LV.** Sailing ship *Bates Family*, 2,153 tons, and the steamer *Germania*, 2,123 tons reg. **Accn.** :—

Name	Area.	Length of lock.	Width of lock.	Depth of water on sill.	
				HWOST.	HWONT.
	acres.	ft. in.	ft. in.	ft. in.	ft. in.
Royal Dock	25	{ 300 large 200 small	{ 70 large 45 small	26 0	22 0
Union.....	1½	230 0	45 0	ft. 21	
Alexandra	48	145 0	35 0	18 0	13 6
Old Fish	12	{ 140 large 100 small	{ 30 large 20 small	{ 20 large 18 small	{ 16 large 13 6 small
New Fish	11	...	...	20 6	16 0
Width of entrance...				39 0	

Graving Docks, &c. :—

Name.	Length of dock.	On blocks.	Width of dock at			Depth of water on sill.	
			top.	bottom	entrance	HWST.	HWNT.
	ft.	ft.	ft.	ft.	ft.	ft. in.	ft. in.
No. 1	400	350	87	4	70	20 0	16 0
" 2	400	...	50	...	30	18 6	14 0
" 3 .....	...	143	30	...	...	10 6	...
Patent Slip	321	...	25			26 0	22 0
Gridiron	220	...	50			26 0	22 0

Extensive warehouse accommodation. Fish landing stage. Foreign animals' wharf. Cranes and other appliances worked by hydraulic machinery.

Charges.—

Pilotage.—District. Into and out of the port or upon the Humber below Grimsby, and so far out to sea as to bring the Northness of Dimlington to bear or be seen a sufficient distance clear or open of the land to the southward thereof, so as to pass clear of the New Sand; and also along the coast northward hereof to the Northness of Dimlington southward to Donna Nook. **Rates**, per foot. From or to the distance at sea where the Northness of Dimlington bears west-south-west to the northward of Kilnsea North Cliff, to or from the Grimsby Docks 3/6. From or to the distance at sea where Kilnsea North Cliff bears west-north-west to the northward of the New Sand Buoy, or the floating light vessel, at the entrance of the river Humber, to or from the Grimsby docks 2/6. From or to the said New Sand Buoy, or the floating light vessel at the entrance of the river Humber, to the eastward of the point where the Spurn High Lighthouse bears north-east, to or from the Grimsby docks 2/2. From or to the Spurn High Lighthouse bearing north-east, to or from the Grimsby docks 2/2 foot. For the fractional part of a foot, not less than half a foot, a proportionate rate. For intermediate distances, a proportionate rate. Ships and vessels in ballast pay two-thirds of the above rate. Ships and vessels employed in the coasting trade, whether laden or in ballast, pay one-half the above rate. Ships and vessels drawing less than six ft pay for six ft. **New Holland.** **Rates** for all ships and vessels piloted from New Holland, and upon any part of the Humber between New Holland and Kingston-upon-Hull, and *vice versa*, 6d foot dft. For the fractional part of a foot, not less than half a foot, a proportionate rate. Ships and vessels in ballast pay two-thirds of the above rate. Ships and vessels employed in the coasting trade, whether laden or in ballast, pay one-half the above rate. Ships and vessels drawing less than six ft pay for six ft.

Towage.—As per agreement.

Officials.—Gen. Man. M.S. & L. Ry. Co., W. Pollitt; Port Master, W. Alford Green; Principal Dock Master, Capt. Jewitt; Coll. of Cust., A. Richardson. The river Humber is under the jurisdiction of the Humber Conservancy.

GUARDBRIDGE or Eden Water, Fifeshire, a creek of St. Andrews. D. HWST. 9ft.

GUERNSEY.—See Channel Islands.

GWEEK, a creek of Port of Falmouth. D. HWST. 14ft, HWNT. 10ft.

HAMOAZE.—See Plymouth.

HARRINGTON, Cumberland. Lat. $54^{\circ} 37' N$; long. $3^{\circ} 34' W$.

A small port 5 miles N. of Whitehaven. A station on the Whitehaven & Penrith Ry. **Auth.** Lessees, Messrs. James Bain & Co., iron & coal masters. **Accn.** Area 1,058,505 sq ft; quayage, 1,100ft. Dry at L.W., 15ft HWST. Used by coasters of 200 tons. **THW.** f. and c. 11h 15m. Crane power to 10 tons.

Charges.—6d per reg. ton.

Official.—Harb. Master, James Douglas.

Hotel.—"Station."

HARTLAND, Devonshire. Lat. $51^{\circ} 2' N$; long. $4^{\circ} 30' W$.

A small harb., dry at L.W., accommodating one vessel of 75 tons. Owned by Sir G. Stuckley, Bart., of Moreton, Bideford. Dry at L.W., 18ft HWST. **THW.** f. and c. 5h 56m.

HARTLEPOOL, West, and **HARTLEPOOL**, Durham. Lat. $54^{\circ} 41' N$; long. $1^{\circ} 11' W$. **Pop.** 54,000. **Auth.** All the inner harb. and dock works in the Port of Hartlepool belong to the N.E. Ry. Co. The outer harb. is under the jurisdiction of the Harb. Comm. **D.** at entrance to harb. about 12ft OST. **THW.** 3h 28m; Sp. rise 16ft; N. rise 12ft. **W.** prev. are W., but the most dangerous are from N. to E. **Ry.** N.E. **Tr.**—I. Cattle, timber, grains, general. **LV.** at any time of tide, sailing 1,996 tons, steamer 2,424 tons; **LV.** at LWST., 1,556 tons. **Accn.** :—

Name.	Dimensions about.	Area about.	Est. wide.	Quayage.	Depth, HWST.	HWNT.
Central Dock....	1,100ft X 610ft	13 acres	60ft	2,900ft	26ft	22ft
North Basin ..	540ft X 240ft	3 "	60ft	1,390ft	26ft	22ft
South " ..	450ft X 220ft	2 "	60ft	900ft	21ft 6in	17ft 6in
There are two powerful sheer legs, lifting 20 tons each, and one of 30 tons' power, also several cranes lifting 30 cwt.						
Union Dock	880ft X 490ft	8 acres	60ft	1,600ft	26ft	22ft
Timber "	760ft X 150ft	2 "	50ft	1,900ft	21ft	17ft
Jackson "	900ft X 535ft	"	60ft	2,680ft	21ft 6in to 26ft	17ft 6in to 22ft
Steam cranes of various powers up to 15 tons.						
Coal Dock	805ft X 383ft	"	50ft	2,270ft	"	"
Victoria "	2,050ft X 420ft	"	"	4,680ft	21ft 6in	17ft 6in
There are 17 staiths, each 100 to 200 tons. Cranes of various powers, from 2 to 10 tons.						
Swanson Dock ..	780ft X 460ft	"	"	1,850ft	21ft 6in	17ft 6in
Cranes from 1 to 3 tons' power.						

Fleet of powerful tugs, owned by Dock Co.

At the various quays vessels can load and discharge at all times of the tide. Very extensive warehouses and every accn. of a first-class port. Graving Docks, &c.:—

Owner.	Name.	Length	Breadth.	H.	
				Sp.	N.
W. Gray & Sons.....	Jackson	ft.	ft.	ft.	ft.
Do.	Swainson	355	59	14	11
R. Irvine & Co.	Harbour	330	50	15	12
N.E. Ry. (Public)	Dry Dock	315	47	15	11
Do. do.	Gridiron	550	50	19	15
		150	60	8	5

Charges.—Dock and harb. rates vary from 2d to 1/ per ton. Tolls on cattle, wood, and other goods 1d per ton. Police, hospital, lifeboat, and ballast 1/- per ton. Wharfage. Harboursage.

Pilotage.—District. The Bay of Hartlepool, inside an imaginary line drawn from Black Hall Rocks, about three miles north of Hartlepool, to a point about two miles south of the mouth of the river Tees. **Rates**, per foot. For every British ship or other vessel piloted and conducted within the Hartlepool Pilotage District 1/6, except coasting vessels and vessels trading between the Elbe and Brest, both inclusive, which from April 1 to October 1, pay at the rate of 1/3. The Commrs. may charge vessels above 400 tons reg. 1d ton on such excess of reg. ton. over and above that number of tons both inwards and outwards, but this excess does not apply to vessels simply changing ports within the district. Vessels moving from harb. to docks or *vice versa*, not ex. 50 tons 2/6; ex. 50 and not ex. 200, 5/; ex. 200 and not ex. 400, 7/6; ex. 400, 10/. From and to each harb. within the port of Hartlepool:—When any vessel requires to change harbours in the port, the pilotage dues from and after April 1 to October 1, both inclusive, out of Hartlepool docks or harb. at the rate of 7½d foot, and into West Hartlepool docks or harb. the same rate; from and after October 1 to April 1 in the following year, both inclusive, out of Hartlepool docks or harb. 9d foot; into West Hartlepool Docks or harb. the same rate, and these dues are payable by vessels changing from the docks or harb. of West Hartlepool to the docks or harb. of Hartlepool.

Towage.—(East or West). 1½d per ton.

Officials.—Man. for N.E. Ry. Co., John Bland; Colls., J. Taylor and J. Sanderson; Goods Agents, C. Learman and J. Porritt; Dock Masters, Capt. W. Watson and John Marshall; Staith and Ballast Master, G. Hodgson; Coll. of H.M. Cust., W. R. Staveley.

HARTLEY, Northumberland. Four miles N. of N Shields.

Ry. Blythe & Tyne. Harb. capable of accommodating vessels of 200 to 300 tons, but not now used.

HARWICH, Essex. At the SE. extremity of the estuary of the river Stour. Lat. 51° 56' N; long. 1° 17' E. **Pop.** 7,842. **Auth.** Harbour Conservancy Board. Owners of quays and piers, G.E. Ry. Co. **P. NC.** **THW.** 12h. 6m; **Sp.** rise 11½ft; **N.** rise 9½ft; **D.** There is no bar; the depth of LW. at harb. entrance is variable, but vessels of 16ft draught enter at LW. **W.** prev. E. to SE. in winter; SW. to NW. in summer. **Ry.** G.E. **Tr.**—I. Coal, timber, grain, eggs, butter, cheese, fruit, vegetables, cattle, horses, and every description of general merchandise; E. Cement, stone, general goods, and horses. **LV.** The harb. is used by vessels from all parts of the world. **Accn.** The harb. is formed by the broad estuaries of the Orwell and the Stour. The entrance is between ast one breakwater which runs about 1,000ft out, and a groyne and wooden breakwater at Landguard Point, on the Suffolk shore. Depth of water in harb. 30ft LWST., 27ft NT. **Parkeston Quay**, erected by the G.E. Ry. Co., is a free quay within the port of Harwich. By discharging at this quay vessels altogether escape the payment of any dock landing or quay dues. The quay is 1,800ft long, with a depth of water at LT. of 16ft, and HT. 27ft 6in. It can be approached at all times. Daily (Sundays excepted) passenger and goods service to and from Antwerp and Rotterdam by G.E. Ry. Co.'s fast steamers, bi-weekly ditto to Hamburg by G.S.N. Co.'s steamers, also bi-weekly to and from Esbjerg, Den-

mark, by steamers of the United S.S. Co. of Copenhagen. Railway trucks run alongside berths. Berthage space for seven steamers, well fitted with hydraulic cranes, capstans, and machinery of the most approved modern type. Extensive warehouse and cattle accn. The quay, &c., is lighted by electric light. Large hotel on quay. There is a patent slip (Vaux's) 140ft long, 35ft wide, with 12ft at OST., and 9ft at NT. At the entrance of the harb., just opposite Harwich, is the Felixstowe dock with a depth of 23ft at LW. Loading and discharging are done by steam cranes of from $1\frac{1}{2}$ to 6 tons. No dock dues beyond the Harwich harb. dues.

Charges.—Harb. dues 1d per ton. on all steamers (but steamers making 20 voyages per annum are afterwards exempt) and on all other vessels, and cargo vessels, not being steamers in ballast $\frac{1}{2}$ d per ton. Quay dues.

Pilotage.—**District.** To and from the Wallet, Hoseley Bay, or the Sunk Light, into and out of Harwich Harb., and up the river Stour to Manningtree, and *vice versa*. **Rates.** From sea or Orfordness to Harwich Harb., under 10ft 42/, 10 to 13ft 63/, 13ft and upwards 84/; from the Rolling Grounds to Harwich Harb., under 10ft 21/, 10 to 13ft 31/6, 13ft and upwards 42/; from Harwich Harb. to sea or Orfordness, under 10ft 31/6, 10 to 13ft 42/; 13ft and upwards 63/; from Harwich Harb. to the Rolling Grounds, two-thirds of the above. For the river Stour:—From an imaginary straight line, drawn from Shotley Point Martello Tower to the tall chimney of the Harwich Cement Works, to Wrabness, and *vice versa* 1/3 per keel; from Wrabness to Mistley and back, inclusive, 3/ per keel; from Mistley to Manningtree, and *vice versa* 1/ per keel.

Towage.—As per agreement.

Officials.—Gen. Man. G.E. Ry., W. Birt; Continental Traffic Man., F. Gooday; Clerk to Harb. Board, R. S. Barnes; Harb. Master, W. Murray; Marine Supt. G.E. Ry., D. Howard; Coll. and Surv. H.M. Cust., G. W. Carr.

Hotels.—"Great Eastern," "Three Cups," "Pier," and "White Hawk."

HAVERFORD WEST, on the Cleddy, near Milford. D. HWST. 10ft, N. 4ft.

HAUXLEY, Northumberland. Lat. $55^{\circ} 19' N$; long. $1^{\circ} 35' W$. No harb. auth. Dry LW. THW. f. and c. 3h 5m.

HAYLE, Cornwall. Lat. $50^{\circ} 11' 30'' N$; long. $5^{\circ} 26' W$; 3 miles SE. of St. Ives. **Auth.** Owners, Messrs. Harvey & Co., of Hayle. THW. f. and c. 5h om. W. prev. W. D. Dry at LW. Depth of water alongside quay same as on old dock sill at Liverpool. **Accn.** Length of quays about a mile. Steam power to lift 30 tons. Steam cranes for discharging coal. There is a gridiron for ships 150ft \times 40ft. There is also a shipbuilding yard, and a factory where engines of the largest class are constructed and repaired. A lifeboat station. **Ry.** The G.W. main line passes through the town with branches to the quays.

Charges.—Harb. dues, 1/6; buoyage, 3/ each vessel; no tonnage dues.

Pilotage.—Foreign: Less than 10ft, 2/ per foot; 10 to 12ft, 2/6; 12 to 14ft, 3/; 14 to 16ft, 3/6; 16 and upwards 4/.

Coasting: Under 100 tons 5/ per vessel, above 100 tons $\frac{3}{4}$ d per ton. If towed one-fourth less. There is a tug-boat.

Officials.—Harb. Master, John Simons; Coll. Henry Thomas, Harb. Office.

Hotel.—"White Hart," Proprietor, Henry Carah.

HEACHAM, a creek of King's Lynn, in the Wash.

HEBRIDES, or Western Islands, W. coast Scotland. Lat. between $55^{\circ} 20'$ and $58^{\circ} 30' N$; long. between $5^{\circ} 0'$ and $8^{\circ} 0' W$. The extent of the group (comprising about 300 islands) covers an area of about 180 miles by 30. Principal islands are Lewis and the small adjacent islands belonging to Ross-shire. Harris (S. part of Lewis) N & S Uist, Benbecula, Skye, Barra, Eig, and the small adjacent islands belonging to Invernesshire. Rum, Muck, Canna, Tiree, Mull, Lismore, Staffa, Luing, Scarba, Colonsay, Oransay, Jura, Isla, Gigha, Cara, &c., belonging to the Co. of Argyle. Bute, Arran, Cumbræ, Inchmarnock, and the Islands lying within the Frith of Clyde, belonging to Buteshire. Total area about 3,000 square miles. Population about 100,000.

HEDON HAVEN, Yorkshire. A small Harb. on the Humber, 4 miles below Hull. **Auth.** Commissioners, by statute 20th May, 1774. **W.** prev. SW. Used by vessels of up to 100 tons.

Official.—James Watson, Clerk.

HELEN, ST.—See St. Helen.

HELFORD RIVER, Cornwall. About 1 mile from the sea. The river discharges into a haven deep enough for vessels of 200 tons—and about a mile wide.

HÉLIERS, ST., Jersey.—See Channel Islands.

HELMSDALE, Sutherland, Scotland. Lat. $58^{\circ} 6' N$; long. $3^{\circ} 39' W$. **Auth.** Owner, the Duke of Sutherland. **Accn.** For vessels up to 145 tons. **D.** 2 ft LW. **THW.** at f. and c. 11h 32m. **W.** prev. W. to SW., dangerous SE. to SW.

Official.—J. Peacock, Factor, Golspie.

HERM ISLAND, a small Island in the Channel Island Group, opposite Guernsey.

HERNE BAY, Kent, an open beach and watering place.

HESKETH BANK, a creek of Fleetwood.

HIGHBRIDGE.—See Bridgewater.

HOLLAND, a creek of Harwich.

HOLLAND, NEW, Lincolnshire. Opposite Hull. See Grimsby.

HOLM, Orkneys. **Auth.** Commrs. of Piers and Harbours in the Co. of Orkney, under Act, 1872. **W.** prev. and most dangerous SE. and SW. **Accn.** Stone pier 3,000ft; 2ft gin LWST., 12ft gin HWST., 4ft gin LWNT., 10ft gin HWNT.

Official.—J. Macrae, Clerk, Kirkwall.

HOLYHEAD, N. Wales. Lat. $53^{\circ} 18' 14'' N$; long. $4^{\circ} 37' 1'' W$. **Pop.** 8,500. **Auth.** Board of Trade (Inner Port of Old Harb., L. & N.W. Ry. Co.) **P. C.** **THW.** 10h 11m; **Sp.** rise 16ft; **N.** rise 12 $\frac{1}{2}$ ft. **D.** at entrance at LWM., New Harb. 9 fathoms, in Old Harb. 17ft. **W.** SW. most prev., NW. to NE. most dangerous, as the harb. is least protected at these points. **Ry.** L. & NW. **Tr.**—An important mail port and general E. and I. **LV.** *Great Eastern* and Channel Squadron. **Accn.** There are two harb., Inner and Outer (667 acres); 1,000ft of quayage, with

depths from 10ft to 29ft HWOSt. Cranage and other accn. Graving Dock 307ft long by 62ft wide at entrance; 70ft across at top, and 45ft at bottom, 12ft deep on blocks at HWST, and 14ft over all. Gridiron 350ft long by 50ft wide; dry at LW. A large beaching ground. This ground is not so good as it was; the shingle is being washed away.

Charges.—Dues in Old Harb. $\frac{1}{2}$ d per ton; New Harb. 2d per ton. Coasters $\frac{1}{2}$ d per ton; wind bound, no charge.

Pilotage.—District. To and from the anchorages at Great Orme's Head, along the coast of the Isle of Anglesea and Wales, as far as Bardsey Island, except the bar and harb. of Caernarvon, and the Swellies. Rates (Inwards and outwards):—

Vessels not ex. 50 reg. tons	£ s d
Ex. 50 and not ex. 100 tons	0 7 6
100 " " 200 "	0 10 6
200 " " 300 "	1 1 0
300 " " 400 "	1 11 6
400 " " 500 "	1 16 9
500 " " 600 "	2 2 0
600 " " 700 "	2 7 3
700 " " 800 "	2 12 6
800 " " 900 "	2 17 9
900 " " 1,000 "	3 3 0
1,000 7s for each 100 tons.	3 10 0

For removing a vessel from one harb. to the other, or for shifting the berth of a vessel in either harb. when not originally brought in from sea by a pilot, the above rates are charged. For shifting the berth of a vessel in either harb. when brought in from sea by a pilot 7/6. All ships and vessels under any circumstances of distress pay the pilot a further sum calculated according to the extent, circumstances, &c., of distress. A pilot taken on board a vessel at the distance of three leagues or further to the southward and westward of Holyhead is entitled to the following additional pay:— On having a Liverpool pilot on board, off Point Lynas, and landing the Holyhead pilot there 63/; on landing the pilot at the Great Orme's Head 84/; if a pilot is taken beyond the limits of his licence to Chester Water, or to Liverpool, 105/. With the sum of 7/6 day for every day such pilot may be detained on board. Pilots boarding ships and vessels at a less distance than three leagues from the Head receive 10/6 less for pilotage than the above rates.

Officials.—Harb. Master, Admiral J. F. C. Mackenzie; Assist. Master, H. Thomas.

HOLY ISLAND.—See Whitby.

HOLY LOCH, a creek under port of Greenock. Same charges.

HOPEMAN, Elginshire, a creek of Inverness. A fishing port.

D. HWS. 11ft, HWN. 8ft.

Charges.—Harb. dues, 4d per ton.

Official.—Harb. Master, J. Taylor.

HOWTH, Co. Dublin, Ireland. Lat. 53° 23' 25" N; long. 6° 4' W. Ry. Dublin and Drogheda. Auth.

Commrs. of Public Works in Ireland, under Act 6 and 7 William IV., c. 35, sentence 40. THW. f. and c. 11h 9m. Accn. Area at HW. 65 acres, at LW. 30 acres. D. at entrance 6 to 7ft. LWST. Not accommodating vessels of above 400 tons, owing to silting up.

Official.—E. Hornsby, Sec., Dublin.

HOY ISLAND, Orkneys. Lat. $58^{\circ} 47' N$; long. $3^{\circ} 7' W$.

There is a harb. at Longhope, from which steamers sail weekly for Leith. A lifeboat station.

HUBBERSTONE PILL and Roads.—See Milford.

HULL, Yorkshire. On the N. bank of the Humber, about 20 miles from its mouth. Lat. $53^{\circ} 44' N$; long. $0^{\circ} 20' W$. Pop.

200,000. **Auth.** The Humber Conservancy Board are the Conservators of the River Humber. There are two Dock Companies, viz., the Old Company (Dock Company at Kingston-upon-Hull) and the new dock of the Hull & Barnsley & West Riding Junction Railway & Dock Co. **P. C.** THW. f. and c. 6h 29m; Sp. rise $20\frac{1}{2}$ ft; N. rise $16\frac{1}{2}$ ft; R. of N. $11\frac{1}{2}$ ft. **D.** as below. **W.** prev. are from S. to W. No winds are considered dangerous in the Humber at Hull. **Rys.** N.E., M.S. & L., and H. & B. & W.R. Jn. Ry. & Dock Co. **Tr.**—I. Grain, seed, flax, hemp, iron, timber, guano, olive oil, provisions, cattle, &c.; E. Alkali, coals, coke, cotton, jute, linen, yarn, machinery, iron, copper, oil, seed, woollen manufactures, &c. **Accn.** Spacious accn. for shipping, every appliance for import and export trade. Docks, &c., of the *Old Dock Company*.—

Name.		A.	R.	P.
Queen's Dock		9	3	29
" "	Tidal Basin	..	1	22
Humber		7	..	24
" "	Tidal Basin	2	1	19
Prince's		6	..	5
Railway		2	3	9
Victoria		20	..	4
" "	Humber Half-tide Basin	3	..	..
" "	" Tidal Basin	2	3	7
" "	Drypool Half-tide Basin	1	..	8
" "	" Tidal Basin	..	1	32
Albert		24	2	18
" "	Tidal Basin	1	3	37
" "	Channel	..	3	4
William Wright Dock		5	3	37
St. Andrew's		10	2	10
" "	Tidal Basin	..	2	..
No. 1 Timber Pond		14	..	4
" 2 "		11	1	1
" 2 "	Extension	14	2	20
Total		140	1	10

Locks and entrances:—

Name.		Length.	Breadth.
		ft.	ft.
Queen's Dock	Lock	121	38
Prince's	Whitefriargate Lock	130	35
" "	Mytongate "	120	35
Humber	Lock	158	41
Railway	Entrance	..	42
Victoria	" to Dock from Humber Half-tide Basin	..	..
" "	" to Half-tide Basin from river	..	50
" "	" Humber	..	60
" "	Half-tide Basin Lock	120	32
" "	Entrance to Dock from Drypool Basin	..	45
Drypool Basin	Lock Entrance from River Hull	172	45
Albert Dock		320	80
William Wright Dock	Entrance	..	50
St. Andrew's Dock	Lock	250	50
Depth of Water over the Albert Dock sill at av. ST. 28ft 6in			

Vessels usually load and discharge for the undermentioned ports:—
 In the Albert and William Wright Docks: For New York, Boston, Bombay, Trieste, Cronstadt, Odessa, Gothenburg, Riga, Stockholm, Reval, Lisbon, &c. Humber Dock: For Amsterdam, Rotterdam, Hamburg, Antwerp, Harlingen, and Newcastle. Railway Dock: For Bergen, Copenhagen, Danzig, Drontheim, Stettin. Prince's Dock: For Bremen, Hamburg, Rotterdam, Rouen, Bordeaux, London, Leith, Dundee, Grangemouth, Aberdeen, Ipswich. Queen's Dock: For Marseilles, Abo, Wassa, Wyberg, Boston, London. Victoria Dock: For vessels engaged in the timber, seed, guano, and nitrate of soda trades. The St. Andrew's Dock is chiefly used for the fishing trade. Steam and hydraulic cranes:—

No.	Tons.		No.	Timber Pond.
11	5	Hydraulic	S. side	Railway Dock.
16	20	Steam Coaling	W. "	Humber
17	20	" "	N. "	Railway "
21	15	" "	N. "	Albert "
23	30	" "	N. "	Victoria "
26	45	" "	No. 1	Timber Pond.
28	5	Hydraulic	No. 2	" "
29	5	Steam	N. side	Albert Dock.
32	15	Hydraulic Coaling	N. "	" "
33	20	Steam	N. "	" "
34	20	" "	S. "	" "
35	3	Hydraulic	S. "	Victoria Dock.
36	20	Steam Coaling	S. "	Queen's "
38	3	Hydraulic	W. "	Victoria "
40	5	Steam	S. "	Albert "
42	25	" Coaling.	S.W.	Victoria "
43	10	Steam	N. "	Wm. Wright Dock.
46	25	Hydraulic		

In addition to the above, the Company have, exclusive of movable cranes, 128 fixed power and hand cranes, the lifting capacity of which varies from one to ten tons, and also sheer legs on N. side of Albert Dock, lifting up to 80 tons. Railway Lines and Sidings:—The Hull Dock Co.'s Railway lines and sidings are in connection with the N.E., the L. & Y., the M., the M.S. & L., and other railways. Warehouses:—

Storage capacity for grain and seed, after deducting 15 to 20 per cent. for space lost in storage.

No.	Dock.	Qrs.	Qrs.	No.	Dock.	Qrs.	Qrs.
2	Queen's	6,020		15	Victoria	12,276	
3	"	5,186		16	"	6,555	
4	"	875					31,837
			12,081	17	Albert	18,386	
6	Prince's	3,685		19	"	8,219	
7	"	16,945		20	"	14,546	
			20,630	21	"	18,939	
8	Railway	22,201		24	"	4,306	
11	"	6,050		25	"	10,817	
12	"	27,339		26	"	25,408	
13	"	8,423		28	Wm. Wright	42,000	
			64,013	29	"	42,000	
9	Humber	2,614		35	Albert	21,579	
10	"	2,615					206,200
			5,229				
14	Victoria	13,006					

Total Qrs..... 340,000

Deal yard accn. at the Victoria Dock 193,300 sq yds; at the Queen's Dock 19,000 sq yds. Also the Company possess a considerable quantity of land available for temporary stowage of wood at the railway, Albert, and William Wright Docks. Timber pond accn. 38a 2r 36p. Other storage accn. With a view of developing the importation of grain and seed from America, India,

and the colonies, the Company have constructed a despatch shed, covering nearly an acre of quay space on the S. side of the Albert Dock, with railway lines through and outside the same, and provided with movable hydraulic cranes capable of working with great rapidity. Quay and shed space:—Extensive quay accn. exists at each dock, and numerous sheds. Guano warehouses:—

No.	Guano Warehouse, Victoria Dock	Tons.
30	"	5,321
31	"	3,375
32	"	17,912
		10,500

37,108

Foreign cattle depôts:—Accn. for 450 head of cattle, or 2,800 sheep; lairage accn. for 250 head of cattle, or 1,500 sheep. Slipways:—

Owner.	Length.	Breadth.	Lifting power.
	ft.	ft.	tons.
Bailey & Leatham	300	22	2,000
Earle & Co, No. 1.	750	36	1,600
Do. " 2.	700	37½	1,800
Do. " 3.	750	36	2,000
Do. " 4.	800	40	2,500

Hull & Barnsley Co.'s Alexandra Dock, on the north side of the river Humber; water space 46 acres, depth of water in dock HWST. 34½ft. Area of quays 160 acres, length of quays 2 miles. Length of entrance lock 550ft, width 85ft. Depth of water on sill 34ft HWOST., 28ft HWONT., 18ft LWONT., 12ft LWOST. There is good anchorage in 40ft at LW. in the roadstead opposite the entrance. The lock gates are opened by hydraulic power, and ships can be passed in and out at all times with expedition.

Graving docks:—

Owner.	Name.	Length.		Width.			Depth of Water on Sill.	
		From Gates to Head.	On Blocks.	Of Entrance.	At Top.	At Bottom.	ST.	NT.
		ft.	ft.	ft.	ft.	ft.	ft.	ft.
Old Dock Co.	No. 1 Grav. Dock	501	460	50	85	61	21	15
"	" 2 "	420	400	35	100	50	18	13
		Length.		Breadth.		Height of Tides.		Accn.
		ft.	ft.	ft.	ft.	ft.	ft.	
Lengfield & Ward	"	163	36	14½	9			
B. B. Scan	Dry Dock	122	38	14	9			
McCann's	"	84	23½	13	8			
Hull & Barnsley	No. 1	500	60	19	13			
"	" 2	550	65	21½	15½			
Westerman	Dry Dock	145	37	14½	9½			
Sanderson	"	170	33½	14	8			
Gibson	Union Dry Dock	214	48½	14	9			
Humphrey	S. E. "	310	42½	20½	14			
Hunt & Fowler	Dry Dock	120	39	13½	7½			
G. W. Brown	"	140	27	9½	3½			

Vessels
of 1,600
reg. ton.
1,800
reg. ton.

Charges.—Dock rates vary from 1d to 1/4½ ton. Wharfage rates on all goods passing over quays. Trimming charges (coal). Buoyage, 100 tons 6/6 less 10^o/₆, every additional 10 tons, 6d less 10^o/₆. Anchorage 1/ to 2/6 vessel, according to size. Jettage 1/6 to 7/ vessel. Rates on goods.

Pilotage.—**District.** Into and out of the port of Kingston-upon-Hull and of the port of Great Grimsby, and upon any part of the river Humber below Kingston-upon-Hull, and so far out at sea as to bring the Northness of Dimlington to bear or be seen a sufficient distance clear or open of the land to the southward thereof, so as to pass clear of the New Sand; and also along the coast northward to the Northness of Dimlington, and southward to Donna Nook. **Rates per foot.** From or to the distance at sea where the Northness of Dimlington bears west-south-west to the northward of Kilnsea North Cliff, to or from Hawke Roads or Grimsby Roads 2/6, Whitebooth Roads 3/6, the port of Kingston-upon-Hull 5/; from or to the distance at sea where Kilnsea North Cliff bears west-north-west to the north of the New Sand buoy, or the floating light vessel, at the entrance of the river Humber, to or from Hawke Roads or Grimsby Roads 1/6, Whitebooth Roads 2/6, the port of Kingston-upon-Hull 4/; from or to the said New Sand buoy or the floating light vessel at the entrance of the river Humber, to the eastward of the point where the Spurn High Lighthouse bears north-east to or from Hawke Roads or Grimsby Roads 1/, Whitebooth Roads 2/, the port of Kingston-upon-Hull 3/6; from or to the Spurn High Lighthouse, bearing north-east to or from Hawke Roads or Grimsby Roads 1/, Whitebooth Roads 2/, the port of Kingston-upon-Hull 3/6; from or to the Hawke Roads, the buoy of the Burcome or Grimsby Roads to or from Whitebooth Roads 1/6, the port of Kingston-upon-Hull 2/6; from or to Whitebooth Roads to or from the port of Kingston-upon-Hull 1/6. For a fractional part of a foot, not less than half a foot, a proportionate rate. For intermediate distances a proportionate rate. Ships and vessels in ballast pay only two-thirds of the above rates. Ships and vessels employed in the coasting trade, whether laden or in ballast, pay one-half of the above rates. Ships and vessels drawing less than 6ft pay for 6ft.

Towage.—As per agreement.

Officials.—*Old Dock Co.*, Gen. Man. and Sec., E. H. Garbett; Principal Dock Master, Capt. H. Robinson; Supt. Wharfinger, H. Best. *Hull & Barnsley Railway & Dock Co.*, Gen. Man., V. W. Hill; Sec., I. Daniell; Coll. of H.M. Cust., E. P. Bishopp Smith; Lloyd's Surv., J. McNeil; Lloyd's Engineer, Jas. Trines. The River Humber is under the jurisdiction of the Humber Conservancy. E. Wilson, Sol. Clerk.

Hotels.—"Royal Station," "Vittoria," "Imperial," and "George."

HYTHE, Kent. One of the Cinque Ports. The harb. is choked up. A lifeboat station.

HYTHE, Essex. River Colne. **Auth.** Commrs., under the Colchester Navigation Act, 10 and 11 Vict., c. 181.

Accn. A quay 1,485ft with D. 2ft LW. Used by vessels up to 60 tons.

Official.—Clerk, H. S. Goody, Colchester.

IKEN.—See Aldeborough.

ILFRACOMBE, Devonshire. Lat. $51^{\circ} 13' N$; long. $4^{\circ} 7' 30'' W$. **Rys.** Barnstable & North Devon, L.S.W., and G.W. **THW.** f. and c. 6h om. **Auth.** Receiver of Court of Chancery, under Acts of Parliament and Prov. Order, and the Pier and Harb. Confirmation Act, 1870, No. 1. **Accn.** Inner harb. has area of about 6 acres, and the outer harb. an area of 4 acres. Dry at LWST. Vessels drawing 20ft enter at HWST., and drawing 14ft HWNT. Quayage 600ft. Also a low water jetty, 5ft LWST., much used by excursion steamers. Crane power to 3 tons. Entrance dries at LW. **W.** prev. SE. to SW.

Charges.—Windbound 1d per ton, coasting 2d, foreign ports 4d
Pilotage.—By agreement.

Official.—Harb. Master, J. C. Dennis.

Hotels.—“Ilfracombe,” “Royal Britannia,” “Royal,” “Clarence,” &c.

INCHARD LOCH, Sutherlandshire. Lat. $58^{\circ} 27' N$; long. $5^{\circ} 7' W$. A small land-locked basin, used as an anchorage by fishing boats.

INCHYRA, a creek of Perth. **D.** HWST. 14ft, HWNT. 8ft.

Official.—Harb. Master, J. Manby.

INNISLYRE, Co. Mayo. A deep and spacious anchorage in Westport Harb., Clew Bay. Vessels are discharged afloat. **THW.** f. and c. 5h 2m.

Official.—J. Read, Sec. to Westport Harb. Commrs.

INVERARY, Argyllshire. Loch Fyne. Lat. $56^{\circ} 40' N$; long. $5^{\circ} 0' W$. Nearest railway station, Dalmaly, 16 miles off. **Auth.** Town Council, under the Royal Charter of the Burgh. **Accn.** An anchorage, with a pier, used by steamers and vessels of about 70 tons. **D.** 16ft LW. and 24ft HWST. **THW.** f. and c. 12h om.

Charges.—According to tonnage.

Officials.—Town Clerk, A. Henderson; Harb. Master, J. McVicar.

INVERGORDON, Ross-shire, Scotland. Lat. $57^{\circ} 43' N$; long. $4^{\circ} 15' W$. **THW.** f. and c. 11h 30m. **Auth.** Owner, Capt. Macleod, of Cadboll, under Act 7 Geo. IV., c 43. **Accn.** Tidal harb., dry at LW., formed by a pier 700ft. long, carried out into 10ft at LW, and 23ft at HWST. Crane power to 3 tons. Used by vessels of up to 1,400 tons.

Charges.—Various, from 100 to 300 tons 4d per ton.

Officials.—Factor, J. Young; Harb. Master, A. Annandale.

Hotel.—The “Commercial.”

INVERKEITHING, Fife. Lat. $56^{\circ} 2' N$; long. $3^{\circ} 26' W$. **Auth.** Town Council, under Crown Charter. **Ry.** N. B. **Accn.** 90 acres; dries at LW., with about 9 to 10ft at HWST. Quayage about 1,000ft, land-locked. Used by sailing vessels and steamers of light draught. **THW.** f. and c. 2h 37m. Patent slipway. **LV.** Steamers of 1,000 tons built here have left the harbour light.

Charges.—According to table in charge of the harb. master.

Official.—Town Clerk, H. Grigor; Harb. Master, John Clark.

INVERNESS, Inverness-shire. On the Ness, about 1 mile above its confluence with the Moray Firth and at the NE. end of the Caledonian Canal. Lat. $57^{\circ} 28' N$; long. $4^{\circ} 13'$

W. Pop. 17,366. **Auth.** Harbour Trust, under Statute 9 July, 1847, and Provisional Order 27 June, 1883. **P. NC.** **THW.** f. and c. at Ke-sock Pier, oh 18m; Sp. rise 12ft; N. rise 9½ft; R. of N. 7ft. **D.** on bar about 6ft at LWST. **W.** The harb. is so situated that no wind is dangerous. **Ry. H. Tr.**—I. Grain, guano, timber, tar, bones, coal, lime, iron, slates; E. Herrings, pit-props, sleepers, staves, timber, turnips, potatoes, and grain. **LV.** 688 tons, at LWST. 30 tons. **Accn.** The area of the harb., formed by the lower reach of the river Ness, is about 3 acres, and there are about 800 yards of quayage space. Depth at Old Harb. ST. rise 13ft to 14ft; NT. 10ft to 11ft; at New Quay (Thornbush) ST. 17ft to 18ft; NT. rise 13ft to 14ft.

Charges.—Dues 1½d ton; dues on ballast 2d ton.

Pilotage.—**District.** One section is licensed for the extent of the jurisdiction of the port authorities. **Rates.** Vessels under 50 tons 4/ in, and the same out, and 1d ton additional for every ton over 50 tons.

Towage.—2/6 per horse from sea to Thornbush; and if stopped at Thornbush for one tide, then from Thornbush to Old Harbour 2/6 per horse. Direct from sea to Old Harbour 3/ per horse.

Officials.—Clerks to Trust, A. P. and R. Hay; Ry. Man., A. Dougall; Harb. Mast., Capt. W. Morrison; Coll. of Harb. Dues, G. Munro; Coll. of H.M. Cust., Mr. Devereux.

IPSWICH, Suffolk. On the Orwell, about 11 miles from the sea. Lat. 53° 35' N; long. 0° 4' E. **Pop.** 55,000. **Auth.** Dock Commission, under Statutes 45 Geo. III., c. 101, 1 Vic., c. 74, 15 Vic., c. 116, and 40 and 41 Vic., c. 216, P. N.C. **THW.** f. and c. oh 35m; Sp. rise 13½ft at Ipswich Dock. **D.** Between the entrance lock and Pin Mill Reach there is a depth of water in the river channel of 21½ft at OST and 18½ft at ONT. In Pin Mill Reach there are iron screw moorings and buoys for lightening with 22ft at LWST. **W.** prev. SW. to W.; no wind can be considered actually dangerous within the port limits. **Ry. G.E. Tr.**—I. Grain, cheese, timber, seeds, coal, wines and spirits; E. Iron, machinery, phosphates, agricultural implements, grain, patent manures, bricks, oil, roots, &c. **LV. Harvestoe**, 1,372 reg. ton. **Accn.** The area of the port is the whole of the estuary of the river Orwell above an imaginary line drawn between Shotley Point and Fagborough Cliff (the limits of the jurisdiction of the Harwich Harb. Conservancy Board), including therein a large floating dock. The area of the dock, which is approached by an entrance lock 300ft long, 50ft wide, is about 29½ acres. Depth on sill at mean HWST. 23½ft, NT. 20½ft. Warehouse accn. and every facility. The dock takes vessels of 17½ft dft. Within the floating dock there are 1,150yds of walled public quay, 300yds of the same unwallled, and with earth slope, 400yds of the Commissioners' and private quays, and 300yds of the Commissioners' ballast quay. On the E. bank of the river there is a timber quay. Outside the dock there are 1,000yds of walled tidal quay, used by vessels up to about 200 tons burthen, and 1,500yds of dwarf tidal quay on the frontages of roadways not used for trade. There are also tidal quays at Bournebridge Creek, at Pin Mill, Chelmondiston, and at Levington Creek. For ships and boats the present depth of the channel at Mulberry Middle, Downham Reach, is 22½ft and in Cliff Reach 21½ft at HWST. The depth of the dock over 15 acres at HWST.

level varies from 17½ ft to 21 ft. Crane power to 5 tons. Slips, &c. :—

Name.	Owner.	Length.	Width.	Depth on Sill, OHW.	Height of sides	
					S.	N.
Gridiron.....	Orvis & Fuller	ft. 240	ft. 30	ft. 9	ft. 6	
Patent Slip	Bayley	132	30	8	5	
Ditto.	Orvis & Fuller	100	30	8	4	

(Carriage can be lengthened to 140 ft.) }

Charges.—Import and export rates on goods. Wharfrage 2d ton on customary dead weight.

Pilotage.—District. From Ipswich quays to Harwich Harb. and *vice versa*. Rates per foot. From the dock entrance to Downham Reach, or *vice versa*, for every sloop or vessel with one mast 1/3; for every other vessel with two or more masts 1/3; from Downham Reach to Levington Creek, or *vice versa*, for every ship or vessel 6d; from Levington Creek to Harwich Harb., or *vice versa*, for every ship or vessel 6d; for every vessel coming inwards from Harwich Harb. to Downham Reach 1/3; for every vessel outward bound from Downham Reach to Harwich Harb. 1/3.

Towage.—Small vessels :—

From Ipswich to	Bridge.	Puntless.	Levington Creek.	Harwich.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Vessels 40 to 50 tons.	0 10 0	0 14 0	0 16 0	0 18 0
" 50 " 60 "	0 12 0	0 16 0	1 0 0	1 2 0
" 60 " 70 "	0 14 0	0 18 0	1 3 0	1 6 0
" 70 " 80 "	0 16 0	1 0 0	1 6 0	1 10 0
" 80 " 90 "	0 18 0	1 2 0	1 9 0	1 13 0
" 90 " 100 "	1 0 0	1 4 0	1 12 0	1 17 0

On the river Orwell :—

From Ipswich to	Downham Reach.	Pinmill.	Levington Creek.	Harwich.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Vessels from 100 to 110 tons.....	1 2 0	1 8 0	1 15 0	2 1 0
" 110 " 120 "	1 4 0	1 10 0	1 18 0	2 5 0
" 120 " 130 "	1 6 0	1 12 0	2 1 0	2 8 0
" 130 " 140 "	1 8 0	1 15 0	2 6 0	2 12 0
" 140 " 150 "	1 10 0	1 18 0	2 10 0	2 16 0
" 150 " 160 "	1 12 0	2 0 0	2 13 0	3 0 0
" 160 " 170 "	1 14 0	2 3 0	2 16 0	3 4 0
" 170 " 180 "	1 16 0	2 5 0	2 19 0	3 8 0
" 180 " 190 "	1 18 0	2 8 0	3 2 0	3 12 0
" 190 " 200 "	2 0 0	2 12 0	3 5 0	3 16 0

Officials.—Clerks to the Dock Com., Messrs. Long & Casley; Engineer, Thos. Miller; Harb. and Dock Master, E. Garwood; Coll. of Rates, E. H. Drummond; Assist. Coll., F. Page; Dock Traffic Supt., E. Hughes; Supt. of H. M. Cust., J. Hedges; Lloyd's Surv., E. Robertson.

Hotels.—"Great White Horse," "Golden Lion," "Crown and Anchor," &c.

IRVINE, Ayrshire. On the coast, between Troon and Ardrossan. Lat. 53° 37' N; long. 4° 41' W. Pop. 8,520. Auth. Harbour Trust, under Irvine Harb. Act, 1873. P. NC. THW. f. and c. 11h 50m; Sp. rise 10ft; N. rise 8ft. D. on

bar at L.W. about 4ft; at HWST. 13ft to 14ft; N. 11ft W. prev. S.W. The harb. is safe for vessels in any wind. Ry. G. & S.W. Tr.—I. Limestone, salt, grain, timber; E. Coal, pig iron, and chemical products. L.V. 830 reg. ton. Accn. The area of the harb. is about 43,444 yards; of this area 31,752 yards have a depth from about 3ft to an average of about 7ft at L.W. There are no docks. The length of the quay space is 1,665ft. There are steam hoists, cranes, &c.

Charges.—Harb. dues, 3d per reg. ton; ballast 3d and 4d per ton; goods $\frac{1}{2}$ d to 2d per ton.

Pilotage. $\frac{1}{2}$ d per reg. ton.

Towage.—(Compulsory.) 2d reg. ton.

Officials.—Sec., J. Dickie; Harb. Mast., M. Boyd; Dep. Harb. Mast., D. McCallum; Coll., J. Maclean; Ry. Supt., J. McKend.

IRELETH, a creek under port of Lancaster. An open beach.

D. 10ft HWST., 4ft HWNT.

ISLAY, a creek under port of Greenock.

ISLE OF MAN. In the Irish Sea, 26 miles W. of England between St. Bee's Head and the Point of Ayre, 15 $\frac{1}{2}$ miles S. of Scotland between Burrow Head and the same Point, 27 $\frac{1}{2}$ miles E. of Ireland between the point W. of South Rock and Contrary Head, and 39 miles N. of Wales between Llanhanna Head, Anglesea, and the Calf. Extreme length 32 $\frac{1}{2}$ statute miles, breadth about 11 $\frac{1}{2}$ statute miles. Contains about 180,000 statute acres. Lat. 54° 18' N; long. 4° 32' W. **Auth.** Harbour Commissioners. **Tr.**—I. Spirits, wines, colonial produce and manufactured goods; E. Fish, agricultural produce, lead ore, paper, linen, sailcloth, &c. **Accn.** The principal ports of the island are:—(a) **Douglas.** Pop. 19,000. Formed by the outlet of Douglas river. The inner harb. is covered in and defended by a north-eastern pier 173 $\frac{1}{2}$ yards long and 13 $\frac{1}{2}$ to 30 yards broad. Is well quayed for about $\frac{1}{2}$ mile. There is also a transverse jetty. Area of harb. about 11 acres, nearly all dry at L.W. The bottom is principally gravel over marl. As a rule, vessels drawing 13ft can enter at ST., and those drawing 9ft at N. In the outer harb. are two deep-water landing piers, one extending ESE. 1,300ft., the other NNE. 700ft. Depth of water alongside at LWOST. 12ft. Depth of water at entrance at OST. about 30ft. No bar. The Harb. Commissioners are at present lengthening the Victoria Pier 300ft, a red buoy being placed 100ft ahead of the works whilst in progress. **W.** prev. S. and W., but they do not affect the harb., which is open to winds from E. to SE. only. **L.V.** which has ever entered harb. was of about 1,500 tons burthen. **THW.** f. and c. Douglas Bar 11h 12m; OST. rise 20 $\frac{3}{4}$ ft; N. rise 16ft. **Charges:** Harb. dues 3d per ton on all goods landed; windbound $\frac{1}{2}$ d per ton; vessels not landing cargo and not landing or embarking passengers 2d per ton. (b) **Peel.** A tidal harb. formed by the outlet of the river Neb; is defended eastward by a pier extending in a NNE. $\frac{1}{2}$ E. direction for 100 yards, continued inwards for 300 yards, and northward by a pier extending NE. 200ft. Area 5 acres. Vessels drawing 12ft to 14ft can enter on ST., and those drawing 8ft to 10ft on N. **W.** S. and W. most prev.; harb. open to NE. **L.V.** which has entered the port, a steamer of 663 tons reg. **THW.** f. and c. 11h 8m; equi. Sp. rise 20 $\frac{1}{2}$ ft; ord. Sp. rise 18 $\frac{1}{2}$ ft; N. rise 14 $\frac{1}{2}$ ft. **Charges** same as Douglas. (c) **Port St. Mary.** A tidal harb., covered by a pier extending out

for about a cable in a N. direction, and by an outer pier 1,000ft. long, extending in the same direction and terminating in 10ft water LWST. The harb. is quayed at the head and upon the W. side, and the passage into it between the pier head and the ledges from the shore is about 200ft wide. Area about 2 acres, over a bottom of mud and clay. Vessels of 12ft to 13ft dft. can enter on ST., and those of 8 to 9ft on N. W. prev. S. and W.; harb. affected by SE. to E. winds. LV., 200 tons reg. THW. f. and c. 11h 10m; ord. Sp. rise 22ft; N. 18ft. Charges same as Douglas. (2) **Castletown** (On C. Bay). A swing bridge divides this harb. into an inner and outer harb. The inner basin has an area of about 2 acres, the available width of entrance being 26ft. Vessels drawing 12ft can enter the outer harb. on ST., and those of 7ft on N. Depth at entrance to bay varies from 5 to 13 fathoms. THW. f. and c. 11h 10m. ST. rise 20ft; N. rise 16ft. Charges same as Douglas. (3) **Ramsey Harbour**. Formed by the outlets of the river Sulby; defended at entrance by two parallel piers. En. 50 yards wide. Vessels drawing 16ft may reach the quay on average ST., and those of 9ft on N. W. prev. S. and W. Harb. open to E. THW. in Ramsey Bay 11h. 12m; ST. rise 20½ft; N. 16ft. 600 yards south of the harb. entrance is an iron landing pier extending in an easterly direction 2,100ft, terminating in 12ft of water at LWST. Charges as at Douglas.

Officials.—Harb. Masters: C. B. Quane, Douglas; J. Morrison, Peel; H. Coole, Port Erin (see Port Erin); T. Qualtrough, Port St. Mary; J. Kewish, Castletown; T. Bryden, Ramsay.

ISLE OF WHITHORN.—See Whithorn.

ITCHENOR, a creek under port of Littlehampton. D. HWST. 14ft, HWNT. 10ft.

Official.—Principal Customs Officer, J. Wiltshire.

JARROW, on the River Tyne. The Mercantile Dry Dock, recently constructed, has a breadth of 73ft. Entrance 60ft. Length 350ft. Depth of water on sill HWST. 21ft.

JERSEY.—See Channel Islands

JOHNSHAVEN, Kincardineshire, Scotland. Lat. 56° 47' N; long. 2° 21' W. Ry. N.B. THW. f. and c. 1h 30m. Auth. Owner, Hercules Scott, Esq., of Brotherton, Johnshaven, N.B., under Prov. Orders 1871 and 1882. W. prev. W. and NSW. and most dangerous SE. Accn. Outer harb. about ½ of an acre, inner harb. ½ an acre. D. Dry at LW., from 5 to 12ft at HW. Good quayage.

Charges.—3d per ton reg. Ballast 6d per ton, taking in or discharging. Windbound vessels 1½d per ton.

Pilotage.—NC., as per agreement.

Officials.—Harb. Master, Wm. Low; Berthing Master, J. Douglas.

Hotels.—"Anchor" and "Ship."

KAMES BAY, I. of Bute. Lat. 55° 53' N; long. 5° 3' W. Frequent by yachts in the season. Good holding ground at moderate depths.

KATERLINE, Kincardineshire, Scot. Lat. 56° 33' N; long. 2° 14' W. A small harb., dry at LW. THW. f. and c. 1h 15m.

KEADBY, on an outlet from the river Don, nav. into the Trent. M.S. and L. Ry. Man., W. Pollett. D. HWST. 22ft, HWNT. 15ft.

KEILLS, Argyleshire. Lat. $55^{\circ} 47' N$; long. $5^{\circ} 40' W$. There is a good anchorage in 5 fms.

KEISS, Caithness, Scot. Near Noss Head. A small fishing harb. belonging to Mr. F. T. Barry, of Keiss. There are no dues.

KELTON, a creek of Dumfries, under the river Nith Commissioners. Dues same as Dumfries.

KEMMAES.—See Cemmaes.

KENMARE RIVER, between Cos. Cork and Kerry, contains Ardmore, Ballycrovane, Bunaw, Killmakilloge, Kenmare, Ormond, and Dunkerrow Harbours. Kenmare, lat. $51^{\circ} 34' N$; long. $9^{\circ} 35' W$, has a tidal pier, the property of the Grand Jury, Co. Kerry, used by a weekly steamer from Cork and by coasting vessels. THW. f. and c. 3h 52m.

Official.—S. Goodwin, Co. Surveyor, Killarney.

KENNETPANS, Clackmannan, on N. bank Frith of Forth, 26 miles above Queens Ferry. Lat. $55^{\circ} 5' N$; long. $3^{\circ} 49' W$. Used by steamers shipping coals of the Clackmannan Coal Co. D. HWST. 18ft, HWNT. 14ft. Steam cranes. Vessels up to 1,000 tons lie on soft mud 7ft 9in deep.

Charges.—1d per ton reg.

KESSINGLAND, fishing village near Lowestoft.

KIDWELLY, Carmarthenshire, 10 miles S. from Carmarthen.

Auth. Corporation of Kidwelly. Ry. G.W. W. prev. SW. Accn. A pier with about 3ft at LW. Tr.—E. Coal, iron, and bricks.

Official.—Town Clerk, D. C. Edwards.

KILKEEL, Co. Down, a fishing village. Lat. $54^{\circ} 4' N$; long. $6^{\circ} 0' W$. D. HWST. 13ft, HWNT. 8ft.

Official.—Harb. Master, T. Grills.

KILLALA, Co. Mayo. Lat. $54^{\circ} 13' 55'' N$; long. $9^{\circ} 11' 45'' W$.

There is a pier, alongside which vessels drawing 9ft lie.

KILLARROW.—See Bowmore.

KILLEANEY BAY, Inishmore Island, Arran Islands, Galway. Lat. $53^{\circ} 6' 56'' N$; long. $9^{\circ} 37' 45'' W$.

There is a small pier with D. 10ft at HWST., alongside.

KILLIBEGS, Co. Donegal. Lat. $54^{\circ} 34' 8'' N$; long. $8^{\circ} 27' 23'' W$.

Auth. Grand Jury, Co. Donegal. Accn. Any vessel can enter, at all times.

KILLOUGH, Co. Down, Ireland. Lat. $54^{\circ} 15' N$; long. $5^{\circ} 36' W$. THW. f. and c. 11h 0m. Ry. Belfast & Co. Down to Downpatrick, which is 5 miles distant. Auth.

Owner, Viscount Bangor, under a grant made to Sir Robert Ward, 23 Charles II. Accn. Area 200 statute acres. D. on bar 13 fathoms HW. Pier about 180 yards long, dry at LW., with 14ft HWST. and 9ft HWNT. No crane power. LV. has been one of 218 tons. Harb. safe and commodious, either for quayage or anchorage.

Charges.—Anchorage: vessels under 50 tons, 2/2; 100 tons, 2/8½; 150 tons, 3/3; 200 tons, 4/4; over 200 tons, 5/5. Quayage, per ton 1½d.

Official.—Harb. Master, Hugh Finlay.

Hotel.—"Bangor Arms" and 4 publichouses.

KILLYLEAGH, Strangford Lough, Ireland. Auth. The Earl of Dufferin. Accn. A quay dry at LW., and

10 to 15 ft HW.

KILMAKILLOGE, Kenmare Bay, Co. Kerry. Lat. $51^{\circ} 48' N$; long. $9^{\circ} 51' W$. A good anchorage in deep water.

KILMORE, Co. Wexford, Ireland, near the Saltees Islands, small harbour formed by a pier and a breakwater now in course of construction by the Irish Board of Works.

KILORGLIN, near Valentia, Ireland. Lat. $51^{\circ} 56' N$ long. $10^{\circ} 19' 16'' W$. Auth. The Grand Jury of Co. Kerry. A tidal pier, protected by a mud-bank.

KILRUSH, Co. Clare, Ireland. Lat. $52^{\circ} 38' N$; long. $9^{\circ} 30' W$. On the Shannon. Auth. Commrs. of Public Works in Ireland, under Act 9 and 10 Vict., c. 86. Accn. Harb. is formed by a pier, and is sheltered from all winds but W. D. at pierhead 8ft LW. Used by vessels of up to 200 tons.

KINCARDINE, Kincardineshire, Scot. Lat. $56^{\circ} 5' N$; long. $3^{\circ} 45' W$. Auth. Owner, Lady Wm. Osborne Elphinstone. Accn. Harb. formed by a pier 115 yards long. D. Dry at LW., 18ft HWST., and 12ft HWNT. THW. f. and c. 3h om. W. prev. NE. and SW., and most dangerous S.

Official.—Agent, Charles Brown.

KINGHOLM-ON-NITH, a sub-port of Dumfries. Harb. Master, G. Little.

KINGHORN, Fifeshire. Lat. $56^{\circ} 5' N$; long. $3^{\circ} 12' W$. A small harb. belonging to the N.B. Ry. Co.

Official.—J. Walker, Gen. Manager, Edinburgh.

KINGSBRIDGE, Devon, 32 miles SW. of Exeter. D. HWST. 14ft, HWNT. 9ft. Charges same as Salcombe.

KINGS LYNN.—See Lynn.

KINGSTON (Elgin).—See Garmouth.

KINGSTON, Sussex.—See Shoreham.

KINGSTON-UPON-HULL.—See Hull.

KINGSTOWN.—See Dublin.

KINSALE (see Bandon Quay), Co. Cork. Lat. $51^{\circ} 36' N$; long. $8^{\circ} 31' 38'' W$. Situated at the mouth of the Bandon. Ry. Terminus of Cork, Bandon & Kinsale Ry. Auth. Harb. Commrs., under Prov. Orders, 1870 and 1874. Accn. Harb. is formed by nature, and improved by the construction of a new pier and quay. D. at quays 8½ft at HW., at bar 13ft at LW., and inside harb. 4 to 5 fms. Vessels of moderate tonnage have often to wait a considerable time to get alongside quay. Cranes nil.

Charges.—1d per ton on reg. tonnage.

Officials.—Sec., M. Hegarty, Esq.; Harb. Master, James Coleman; Coll., J. Calgan.

Hotels.—"Kinsale Arms," "Commercial," and "Army and Navy."

KIPFORD.—See Barlochan.

KIRBY IRELETH.—See Ireleth.

KIRKCALDY, Fifeshire, in the Firth of Forth. Lat. $56^{\circ} 7' N$; long. $3^{\circ} 10' W$. Pop. 25,000. Auth. Harb. Commissioners, under Act 12 and 13 Vict., c. 13, and Harb. Act, 1876. P. NC. D. on bar, dry at LW. In outer harb. ST. 16½ ft; NT. 11½ ft. W. prev. NW. to SW.; most dangerous ENE. to ESE. Ry. N.B. Tr.—I. Chiefly flax, timber, guano, corn, cork shavings, &c.; E. Manufactured goods, coal, grain, potatoes, and linoleum. LV. 2,040 tons (this vessel did not load at Port). The harb., formed by an East pier and middle and West quay, has an area of 5 acres, including a dock, with an entrance 31 ft wide, the outer entrance is 64 ft wide, facing SSW., the entrance basin is 31 ft wide. Total quayage space inside the harb. is about 1,300 ft. The harb. is dry at LW., and has an average depth of 16 ft at HWST. Good berthage from that depth to 10 ft over a bottom of muddy sand. The dock has 2 ft less water than the outer harbour. Extensive grain warehouses, &c., cranes, sheer legs for lifting boilers, and other facilities.

Charges.—Harbour dues, coastwise 3d ton in harbour and 4d ton in dock. Foreign 6d in harb., and 8d in dock.

Pilotage.—District. From harb. to Roadstead. NC. outwards. **Rates.** Inwards, 1/ foot, and 2/6 for boat attendance. Outwards as per agreement.

Towage.—As per agreement.

Officials.—Clerk to Commrs., W. M. Dow; Harb. Master, Capt. A. Henderson; Coll. of H.M. Cust., G. Pearson.

Hotels.—"Harbour Head," "National," and "George."

KIRKCUDBRIGHT, Kirkcudbrightshire. Lat. $54^{\circ} 48' N$; long. $4^{\circ} 5' W$. On the River Dee. Auth. Town Council, under Act 16 and 17 Vict., c. 93, s. 12; and a Schedule of Rates, approved by Board of Trade, February 22, 1854. Accn. A small harb. D. 2 ft LW. Used by coasters. THW. f. and c. 11 ft 10 in.

Official.—David McLellan, Town Clerk.

KIRKWALL, Orkneys. Lat. $58^{\circ} 59' 10'' N$; long. $2^{\circ} 57' 30'' W$. Pop. 4,100. Auth. Orkney Harb. Commrs., under the Orkney Harbs. Act., 1887. P. NC. THW. 10 ft 9 in; Sp. rise 10 ft; N. rise 7½ ft. W. prev. from SW. to W.; most dangerous NE. Accn. The harb. is a small natural bay, sheltered from the northward by a pier, extending about 373 yds from the shore, with a return head of 33 yds pointing to the NW. There are warehouses, and the piers have 22 ft at HWST. and 12 ft LWST. There are also cranes to 3 tons' power, and other accommodation.

Charges.—Harb. dues according to size 1½d to 6d ton. Harb. lights 1/ for every vessel above 20 tons reg. Mooring anchors 1/ for every vessel making fast.

Towage.—As per agreement.

Officials.—Clerk to Commrs., D. J. Robertson; Harb. Master, R. Heddle; Asst. Harb. Master, J. T. Irvine; Cust. Officer, W. Duffus.

Hotel.—"The Kirkwall," Wm. Dunnet.

KITCHEN COVE, Bantry Bay, Co. Cork. Lat. $51^{\circ} 43' N$; long. $9^{\circ} 35' W$. This is fair shelter for craft drawing up to 13 ft.

KYLEAKIN, Inverness-shire. Lat. $57^{\circ} 16' 39''$ N; long. $5^{\circ} 44' 28''$ W. Auth. Owner, Lord Macdonald. Accn. A pier, dry at LW.; the basin has 15ft at LW. THW. f. and c. 6h 16m.

Official.—Factor, A. Macdonald.

KYLE RHEA, Inverness-shire. Lat. $57^{\circ} 17' N$; long. $5^{\circ} 40' W$. There is a good pier at this place.

LAMBAY ISLAND HARBOUR, Co. Dublin, Ireland. Lat. $53^{\circ} 30' N$; long. $6^{\circ} 0' W$.

LAMLASH, Arran Island, Hebrides. Lat. $55^{\circ} 31' N$; long. $5^{\circ} 4' W$. A good anchorage and excellent harb., but landing difficult at LW. There is a small pier at this place.

LANCASTER, Lancashire, 5 miles above Glasson Dock, on the river Lune, 12 miles from the sea. Lat. $54^{\circ} 3' W$; long. $2^{\circ} 46' W$. Pop. 20,000. Auth. Commissioners and Trustees of the Port of Lancaster. St. George's Quay, under Act 23 George II. and subsequent Statutes. P. C. THW. 11h 16m. D. at Lancaster ST. 12ft; NT. 6ft. W. prev. SW.; most dangerous from WNW. Rys. L. & NW. and M. Tr.—I. Timber, grain, Spanish ores, &c.; E. Coal and salt. LV. at *Glasson Dock* at HWST. about 600 reg. ton.; at *Morecambe* at HW. 560 reg. ton. *Glasson Dock*, the property of the Commissioners of the port of Lancaster, is 500ft long and 200ft wide, with an entrance 35ft wide; depth of water over sill at ST. 17 to 20ft; NT. 12 to 14ft. The lock connecting this with the Lancaster Canal is 100ft long by 26ft wide. There is a graving dock attached 197ft long (187ft on blocks), entrance 35ft wide. Outside the dock there is 400ft of quay wall, dry at LW., and in dock there is 1,000ft of quayage space. Steam cranes, coal tip, &c. *Morecambe Harb.*, property of the Midland Ry., has good warehouse and steam cranes accommodation. LV. at HW. 560 tons reg. No vessel can enter at LWST. D. on bar at LW. 2ft 3in. W. prev. SW.; most dangerous NE.

Charges.—Harb. light and buoyage dues, 4d per ton. Foreign 9d to 1/ per ton. Ballast loading 1/ per ton, discharging 2d to 6d per ton.

Pilotage.—River Pilotage:—

River Pilotage.	Per Foot of the Vessel's Draught ^o of Water.
	s. d.
Within Line from Abbey Lower Lighthouse to Sunderland Point for or from Glasson:—	
Under 200 tons register	1 0
Do. 600 do.	1 6
Do. 1000 do.	2 0
For 1000 do. and above	3 0
Within Line from Abbey Lower Lighthouse to Sunderland Point for or from the Old or New Quay or Jetty at Lancaster or other place within the said line:—	
Under 8 feet draught.....	1 0
8 feet and under 10 draught.....	1 4
10 feet and upwards	2 0

For removing any vessel which on her passage to or from the Old Quay or Jetty at Lancaster shall stop and moor at the New Quay, 5/ extra.

Sea pilotage :—

On vessels employed in the "Oversea" Trade.

From	To or opposite	Under 200 Tons Register.	200 Tons and under 600 Tons Register.	600 Tons and under 1000 Tons Register.	1000 Tons Register and upwards.
		Per Foot of the Vessel's Draft of Water.			
		s. d.	s. d.	s. d.	s. d.
Within lines from Morecambe Bay Light Ship to Formby Point and Haverigg Point respectively....	Glasson Dock and vice versa	6 0	8 0	9 0	10 0
Within a line with Blackcomb bearing NNE.....	Ditto	5 0	6 0	7 0	8 0
Danger Patch Buoy, or one mile outside No. 1 Buoy.....	Ditto	4 6	5 6	6 6	7 6
The Anchorage at Foot of Wyre or off No. 1 Buoy	Ditto	4 0	4 6	5 0	5 6
Within No. 3 Buoy and outside river limits.....	Ditto	2 0	2 6	3 0	4 0
Piel Anchorage.....	Ditto	5 6	6 6	7 6	8 6
Within lines from Morecambe Bay Light Ship.....	Piel Anchorage..	4 6	6 0	7 0	8 0

On Vessels employed in the "Coasting" Trade one-half of the above rates.

NOTE.—Masters of outward bound vessels may, at their option, dispense with the services of pilots at Danger Patch Buoy.

Towage.—Ships under 300 tons £6 6s; 400 tons £7 7s; 500 tons £8 8s; 600 tons £9 9s; 700 tons £10 10s; and every additional 100 tons £1 1s extra. From Glasson Dock to Lancaster or vice versa, 6d per ton; and 9d if towed up and down.

Officials.—Gen. Man. M. Ry., J. Noble, Derby; Gen. Man. L. & N.W. Ry., J. Findlay, London; Harb. Mast. Lancaster and Glasson Dock, A. Russell; Harb. Mast., Morecambe, J. M. Sibbald; Dock Mast., Glasson, W. N. Greenwood.

NOTE.—The Commissioners are rebuilding and extending the new quay at Lancaster. It will be completed early in 1890, and will extend for 500ft along the river front.

LANGSTON HARBOUR, Portsmouth, Hants. There is about 14ft on bar. Open to S. winds.

Official.—Quay Master, A. Little.

LARGO, Fifeshire. Lat. 56° 13' N; long. 2° 56' W. The birthplace of Alex. Selkirk (Robinson Crusoe). Ry.

NB. Auth. Owner, Geo. Johnston, Esq., of Largo. Accn. A pier carried out to half tide; D. 4ft LW. Used by coasters loading potatoes and linseed cake. W. prev. E. and N., most dangerous E. THW. f. and c. 2h 20m.

Charges.—Dues 6d to 1/ per ton. Cargo 1d to 6d per ton.

Officials.—Agent, C. Gulland; Harb. Master, H. Guthrie.

Hotel.—"Robinson Crusoe."

LARGS, Ayrshire. Lat. 55° 50' N; long. 4° 50' W. Rys.

Glasgow & SW.; and Caledonian. A small harb. used by passenger steamers and coasters up to about 90 tons. D.

at L.W. 3ft. **Auth.** Joint Stock Co., under Act 2 William IV., c. 44. **THW.** f. and c. 11h 55m.

Charges.—2d per ton on all vessels over 20 tons.

Officials.—Sec., J. Boyd; Harb. Master, R. Wright.

LARNE, Co. Antrim. Lat. 54° 51' N; long. 5° 47' W. **Rys.** Belfast and Northern Counties, and Ballymena and Larne. **Auth.** Owner, J. Chaine, Esq., under Prov. Order, confirmed by the Pier and Harbours Confirmation Act, 1871 and 1888. **THW.** f. and c. 10h 40m. **Accn.** A pier harb.; piers carried out to 18ft LW., and 26ft HW. Crane power to 10 tons. **LV.** 3,986 tons. **W.** prev. W., most dangerous E. to SE.

Charges.—Home 4d per ton, foreign 6d. Rates on goods as per schedule.

Official.—Harb. Master, Wm. Dalton.

Hotel.—"Oldfleet Hotel Co., Ltd."

LAUGHARNE (Barks-under-Clyffe), Towry River, Carmarthen-shire. Lat. about 51° 22' N; long. 4° 20' W. A harb. used by small colliers. **W.** prev. SW. No harb. authority. **THW.** f. and c. about 5h 45m.

Official.—Recorder, David Wilkin.

LEIGH, Essex. River Thames. A fishing harb., 17 miles SE. of Chelmsford.

Official.—Principal Coast Officer, F. Harris.

LEITH, Midlothian. On the Water of Leith. Lat. 55° 59' N; long. 3° 10' W. **Pop.** 58,193. **Auth.** Commissioners, under Docks Act, 1875. **P. NC.** **THW.** f. and c. 2h 17m; Sp. rise 16½ft; N. rise 12½ft; R. of N. 9ft. **D.** on bar 10ft LWST. **W.** prev. W. **Rys.** Cal. and N.B. **Tr.**—I. Grain, hemp, provisions, cattle, esparto, fibre, ores, timber, manure, wines, &c.; E. Iron, hardware, coal, canvas, machinery, chemicals, fire-bricks, &c. **LV.** *Mentmore*, 2,230 tons. The **En.** to the harb. and docks between the two piers is 77yds wide. **Accn.** Area of harb. and docks:—

	Area. Acres.	Depth of water HW. Equinoctial ST.	
		ft.	in.
Harbour	14	26	6
Inner Harbour	7	15 to 18	
Old Docks	10	18	6
Victoria Dock	5	24	6
Albert	11	26	6
Edinburgh	17	26	6
Total	64		

In addition there is the entrance channel, sometimes designated "harbour" between the piers; this portion is not used for vessels lying to discharge cargo, but simply as an entrance to the docks and harb. Dry Docks, &c.:—

Name.	Length.	Width.	Depth of Water on Sill OHW.	
			ft.	in.
Prince of Wales' Dry Dock	382	70	20	6
Edinburgh	300	40	17	0
Commercial	266	36	15	0
<i>Menzies' Upper</i>	164	35	12	0
<i>Lower</i>	174	35	10	6
Sandport Street	180	31	10	6

Hydraulic and steam cranes lifting up to 65 tons. Hydraulic coal cranes and hoists. Very extensive quay shed accommodation. Quayage length, 9,000ft.

Charges.—Rates on goods. Rates on vessels.

Pilotage.—(Leith Harbour and Docks.) District. The limits of the port and harb. of Leith extending from a point at a bridge beyond or east of Seafeld Toll Bar; eastward of Leith to Wardie Brow or Brae westward of Newhaven, and half-way across the Firth of Forth. (These limits are extended for pilotage purposes by Article 8 of the Bye-laws and Regulations.) Rates per foot. Inwards:—7ft dft. and under 5/10; above 7 and not ex. 8ft 8/; above 8 and not ex. 9ft 9/9; above 9 and not ex. 10ft 11/8; above 10 and not ex. 11ft 13/9; above 11 and not ex. 12ft 16/; above 12 and not ex. 13ft 19/6; and for every foot or part of a foot above 13 an additional charge of 1/6. Extra attendance:—For each 24 hours extra attendance on board, when requested by the master, to the master pilot 3/, and to each of the boatmen 1/6. Pilot boats and crews:—For vessels from foreign ports under 70 tons 4/; for vessels from foreign ports of 70 and not ex. 120 tons 5/; for vessels from foreign ports ex. 120 and not ex. 250 tons 6/; for vessels from foreign ports ex. 250 tons 9/. Coasting vessels of any size which take a pilot boat to be charged 2/6 for boat's and men's attendance, besides the pilotage. Outwards:—Outward rates one-half of those inwards. (Leith, Trinity House.) District. The Firth of Forth from Fife Ness on the north to St. Abb's Head on the south; the Corporation also have power to license pilots "for seas and firths and along the coasts and islands of the Northern and German Oceans." Rates. For piloting vessels from St. Abb's Head or Bell Rock to Harb. Pilots limits or Leith Roads, and from there to Carron Roads, &c., and *vice versa*:—

Limits,	100 Tons and under.	100 to 200 Tons.	200 to 300 Tons.	300 Tons and upwards.
From St. Abb's Head, or Bell Rock, to Leith Roads	£ s. d. 2 2 0	£ s. d. 3 3 0	£ s. d. 4 4 0	£ s. d. 5 5 0
From May Island, or Bass Rock, to Leith Roads ..	1 11 6	2 2 0	3 3 0	3 13 6
From Leith Roads to Carron Roads, or Harbours above Queensferry, or from the Hope to Alloa.....	1 1 0	1 7 6	1 11 6	2 2 0
From Leith Roads to Inverkeithing or the Hope ..	0 17 6	1 1 0	1 2 6	1 7 6
From Carron Roads to Alloa	0 10 6	0 12 0	0 15 0	1 1 0

For distances between St. Abb's Head to May Island or Bass, and thence to Leith Roads 3/ per league to be deducted from above rates, but in no case shall the pilot's fee be reduced more than one-half. The daily pay of a pilot during detention shall, exclusive of his proper pilotage, be 5/ for every lay day after the day of the vessel's arrival, over and above his proper maintenance out of the ship's stores. For pilotage, from sea, into and out of the sounds and roadsteads in the Orkney Islands.

Limits.	60 Tons and upwards to 100 Tons.	100 Tons and upwards to 220 Tons.	220 Tons and upwards to 420 Tons.
	£ s. d.	£ s. d.	£ s. d.
1st.—From five miles seaward of Hoy Head through Hoy Sound to anchorage in Stromness Harb. or Kerston Roads, and out again to sea by Hoy Sound	1 5 0	1 15 0	2 12 6
2nd.—From sea through Hoy Sound to anchorage in Stromness Harb. or Kerston Roads, and out again to sea by Long Hope, and <i>vice versa</i>	1 5 0	2 2 0	3 0 0
3rd.—From sea through Hoy Sound to anchorage in Stromness Harb. or Kerston Roads, and out again to Sea by Long Hope and Pentland Frith, and <i>vice versa</i>	1 11 6	2 5 0	3 10 0
4th.—From sea through Hoy Sound to anchorage in Stromness Harb. or Kerston Roads, and out again to sea by Holm Sound, and <i>vice versa</i>	1 8 0	2 0 0	3 0 0

Towage.—

From Leith to	Aberdour, Btisland, Pettycur, Fisherrow.	St. David sand Inverkeithing.	Charlestown and Limekilns.	Bridgeness and Bo'ness.	Alton, Kennetpans, and Clackmannan.	North Berwick.	Kirkcaldy, Dysart, and Cockenzie.	Gangemouth and Kincardine.	Wemyss.	Methil, Leven, and Largo.	Ellie, Anstruther, and Pittenween.	Craig and Dunbar.
40 tons and under...	25/	30/	32/6	37/6	45/	55/	32/6	40/	37/6	45/	60/	65/
40,, 60 tons	27/6	32/6	35/	40/	50/	57/6	35/	45/	40/	50/	65/	67/6
60,, 80,,	30/	35/	37/6	42/6	53/	60/	37/6	48/	42/6	53/	68/	70/
80,, 100,,	32/6	37/6	40/	45/	58/	63/	40/	51/	45/	58/	71/	75/
100,, 120,,	35/	40/	42/6	47/6	61/	66/	42/6	54/	47/6	61/	74/	78/
140,, 160,,	40/	45/	47/6	52/6	67/	72/	47/6	60/	52/6	67/	80/	84/
180,, 200,,	45/	50/	52/6	57/6	73/	78/	52/6	66/	57/6	73/	86/	90/
220,, 240,,	50/	55/	57/6	62/6	79/	84/	57/6	72/	62/6	79/	92/	96/
260,, 280,,	55/	60/	62/6	67/6	85/	90/	62/6	78/	67/6	85/	98/	102/
280,, 300,,	57/6	62/6	65/	70/	88/	93/	65/	81/	70/	88/	101/	105/

And 3/ every 20 tons additional. From ports E. of Leith, 10/ extra Harbour Towage.—Inwards, 2½d per reg. ton; outwards, 2d. per ton. Second boat, 1d per reg. ton. From Leith, clear of Inchkeith, 2½d per ton. Granton Towage same as Leith. No difference for ships in ballast. Distance money as per agreement. The steam tug owners will not be responsible for any damage while towing.

Officials.—Clerk to Commrs., J. Torry; Gen. Supt. of harb. and docks, P. Whyte, M.I.C.E.; Coll. of dues, J. T. Carmichael; Dock Master, G. Rose; Coll. of H.M. Cust., J. King Groom; Board of Trade Surv., G. Carlisle.

LERWICK, Shetland Isles. Lat, 60° 10' N; long, 1° 8' W. Pop. about 5,000. Auth. Harbour Trustees. P. N.C.

THW. 10h 30m; Sp. rise 6ft; N. rise 4ft. D. in harb. or bay, ST. varying throughout from 10 to 60ft; NT. 4 to 54ft. Tr.—I. Fish curing stock, ice, timber; E. Fish. Accn. Harb. is a capacious landlocked bay on the W. side of Brassey Sound. A new deep water pier is now open for traffic; 12ft of water at LWST.

Charges.—At pier, as per schedule. There are private quays in the Roads at which dues may be charged, but the owners have no legal right to charge.

Pilotage.—District not defined. Rates as per agreement.

Towage.—As per agreement.

Officials.—Clerks to Commrs., Sievwright & Macgregor; Harb. Master, George Allison; Coll. of Cust., Receiver of Wreck, and Supt. of Mercantile Marine, J. Dodsworth; Registrar of R.N.R., Coastguard Officer and Drill Supt. R.N.R., T. Johnstone.

Hotels.—"Royal," "Grand," "Queen's," &c.

LEVEN, Fifeshire, at the mouth of the Leven. D. HWST. 12ft, HWNT. 8ft.

Charges.—Harb. dues, 1d per ton.

LIMEKILNS, Fifeshire, a sub-port of Bo'ness. D. at HWST. 13ft and HWNT. 8ft.

LIMERICK. On the river Shannon, 60 miles from the Atlantic. Lat. $52^{\circ}40'N$; long. $8^{\circ}37'W$. Pop. 48,300. Auth.

Harbour Commissioners, under Act 1867. P. NC. THW. 6h 10m; Sp. rise 18½ft; N. rise 13½ft. W. prev. NW. and NE.

Rys. G.S. & W., W. & L., L & E.L. & F. **Tr.**—I. Manufactured goods, coal, iron, tea, sugar, tobacco, wine, and timber; E. Corn, provisions, and agricultural produce. **LV.** 1,483 tons. **Accn.** Harb. is about 1,600yds long, and 150yds wide. Docks, &c.:—

Name.	Length.	Width.	Depth on Sill at OHW.	
			ST.	N.
Floating Dock.....	ft. 810	ft. 70 (En.)	ft. 23	ft. 18
Graving Dock.....	428	45	17	—
*Patent Slip.....	500	30	19	14

* This goes down to LWT.

Good warehouse accn. ; hand cranes up to 7 tons.

Charges.—Port and harb. charges, foreign and coastwise from 3d to 1/3 reg. ton. Dues on goods.

Pilotage.—District. From quays and docks of Limerick to Loop Head and Kerry Head, at mouth of the river Shannon. Rates:—

Registered Tonnage.		Between Scatterry and Limerick.						Between Scatterry and Kilkredane.	Between Kilkredane and Killoher Head.	Between Killoher and Loop Head.
Exceeding	Not Exceeding	Inwards.	Outwards.							
			With Cargo.	Ballast.						
Tons.	Tons.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
100	100	1 10 0	1 10 0	1 10 0	1 0 0	0 13 4	0 13 4			
150	150	1 13 0	1 13 0	1 13 0	1 0 0	0 13 4	0 13 4			
200	200	1 16 0	1 16 0	1 16 0	1 0 0	0 13 4	0 13 4			
250	250	2 11 0	2 11 0	2 11 0	1 0 0	0 13 4	0 13 4			
300	300	3 0 0	3 0 0	3 0 0	1 0 0	0 13 4	0 13 4			
350	350	3 6 0	3 6 0	3 0 0	1 1 3	0 14 2	0 14 2			
400	400	4 1 0	4 1 0	3 0 0	1 2 0	0 15 0	0 15 0			
450	450	4 7 0	4 7 0	3 0 0	1 3 9	0 15 10	0 15 10			
500	500	4 13 0	4 13 0	3 2 0	1 5 0	0 16 8	0 16 8			
550	550	5 5 0	5 5 0	3 10 0	1 6 3	0 17 6	0 17 6			

(Continued.)

Tons.	Tons.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
550	600	5 8 0	5 8 0	3 12 0	1 7 6	0 18 4	0 18 4	0 18 4
600	650	5 11 0	5 11 0	3 14 0	1 8 9	0 19 2	0 19 2	0 19 2
650	700	5 14 0	5 14 0	3 16 0	1 10 0	1 0 0	1 0 0	1 0 0
700	750	5 17 0	5 17 0	3 18 0	1 11 3	1 0 10	1 0 10	1 0 10
750	800	6 0 0	6 0 0	4 0 0	1 12 6	1 1 8	1 1 8	1 1 8
800	850	6 1 6	6 1 6	4 1 0	1 13 9	1 2 6	1 2 6	1 2 6
850	900	6 3 0	6 3 0	4 2 0	1 15 0	1 3 4	1 3 4	1 3 4
900	950	6 4 6	6 4 6	4 3 0	1 16 3	1 4 2	1 4 2	1 4 2
950	1,000	6 6 0	6 6 0	4 4 0	1 17 6	1 5 0	1 5 0	1 5 0
1,000	1,050	6 7 6	6 7 6	4 5 0	1 18 9	1 5 10	1 5 10	1 5 10
1,050	1,100	6 9 0	6 9 0	4 6 0	2 0 0	1 6 8	1 6 8	1 6 8
1,100	1,200	6 15 0	6 15 0	4 10 0	2 2 6	1 8 4	1 8 4	1 8 4
1,200	1,300	7 1 0	7 1 0	4 14 0	2 5 0	1 10 0	1 10 0	1 10 0
1,300	1,400	7 7 0	7 7 0	4 18 0	2 7 6	1 11 8	1 11 8	1 11 8
1,400	1,500	7 13 0	7 13 0	5 2 0	2 10 0	1 13 4	1 13 4	1 13 4
1,500	1,600	7 19 0	7 19 0	5 6 0	2 12 6	1 15 0	1 15 0	1 15 0
1,600	1,700	8 5 0	8 5 0	5 10 0	2 15 0	1 16 8	1 16 8	1 16 8
1,700	1,800	8 11 0	8 11 0	5 14 0	2 17 6	1 18 4	1 18 4	1 18 4
1,800	1,900	8 17 0	8 17 0	5 18 0	3 0 0	2 0 0	2 0 0	2 0 0
1,900	2,000	9 3 0	9 3 0	6 2 0	3 2 6	2 1 8	2 1 8	2 1 8

Rates for Clare. From sea to mouth of Clare River, or from Limerick to mouth of Clare River, Scatterry rates; from Foynes to Smith's Island or from Smith's Island to Clare Quay, and *vice versa*, two-thirds Scatterry rates; from Foynes to Clare Quay, Scatterry rates.

Towage.—

Reg. Tonnage, &c.	Grass Island, 9 miles.	Beigh Castle, 18 miles.	Foynes, 27 miles.	Tarbert, 36 miles.	Kilrush, 45 miles.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Under 50 tons	{ loaded	1 15 0	3 0 0	4 10 0	6 15 0
	{ ballast	1 8 0	2 12 0	4 2 0	6 8 0
50 & un. 100	{ loaded	2 16 0	4 8 0	6 2 0	8 4 0
	{ ballast	2 2 0	3 12 0	5 8 0	7 10 0
100 " 150	{ loaded	3 10 0	5 8 0	7 6 0	9 4 0
	{ ballast	2 16 0	4 14 0	6 12 0	8 10 0
150 " 200	{ loaded	4 4 0	6 8 0	8 12 0	10 16 0
	{ ballast	3 10 0	5 0 0	7 4 0	9 8 0
200 " 250	{ loaded	4 18 0	7 8 0	9 18 0	12 8 0
	{ ballast	4 4 0	6 0 0	8 10 0	11 0 0
250 " 300	{ loaded	5 12 0	8 8 0	11 4 0	14 0 0
	{ ballast	4 14 0	7 0 0	9 16 0	12 12 0
300 " 350	{ loaded	6 6 0	9 6 0	12 6 0	15 6 0
	{ ballast	4 18 0	7 18 0	10 18 0	13 18 0
350 " 400	{ loaded	7 0 0	10 4 0	13 8 0	16 12 0
	{ ballast	5 12 0	8 16 0	12 0 0	15 4 0
400 " 450	{ loaded	7 14 0	11 1 0	14 8 0	17 14 0
	{ ballast	6 6 0	9 13 0	13 0 0	16 6 0
450 " 500	{ loaded	8 8 0	11 18 0	15 8 0	18 18 0
	{ ballast	7 0 0	10 10 0	14 0 0	17 10 0
500 " 550	{ loaded	9 2 0	12 14 0	16 6 0	19 18 0
	{ ballast	7 14 0	11 6 0	14 18 0	18 10 0
550 " 600	{ loaded	9 16 0	13 10 0	17 4 0	20 18 0
	{ ballast	8 8 0	12 2 0	15 16 0	19 10 0
600 " 650	{ loaded	10 10 0	14 6 0	18 2 0	21 18 0
	{ ballast	9 2 0	12 18 0	16 14 0	20 10 0
650 " 700	{ loaded	11 4 0	15 2 0	19 0 0	22 18 0
	{ ballast	9 16 0	13 14 0	17 12 0	21 10 0
700 " 750	{ loaded	11 18 0	15 18 0	19 18 0	23 18 0
	{ ballast	10 10 0	14 10 0	18 10 0	22 10 0
750 " 800	{ loaded	12 12 0	16 14 0	20 16 0	24 18 0
	{ ballast	11 4 0	15 6 0	19 8 0	23 10 0
800 " 850	{ loaded	13 6 0	17 10 0	21 14 0	25 18 0
	{ ballast	11 18 0	16 2 0	20 6 0	24 10 0

Officials.—Harb. and Dock Master, M. Fitzmaurice; Coll. of H.M. Cust., C. Heyward.

LITTLEFERRY, Sutherlandshire. Lat. $57^{\circ} 56' N$; long. $4^{\circ} 0' W$. **Auth.** Owner, Duke of Sutherland, under Act 11 and 12 Vict., c. 99. A small harb. with about 5ft at L.W. Used by coasters up to 140 tons. **W.** prev. W. to SW., most dangerous ENE. to ESE. **THW.** f. and c. 11h 42m.

Officials.—Factor, D. McLean, of Golspie. Harb. Master, J. Mowat.

LITTLEHAMPTON, Sussex. On the Arun. Lat. $50^{\circ} 48' N$; long. $0^{\circ} 32' W$. **Pop.** 4,000. **Auth.** Arundel Harbour Commissioners, under Acts of Parliament Geo. III. and IV. **P. C.** **THW.** 11h 20m.; **Sp.** rise 16½ft; **N.** rise 12½ft. **D.** on bar at L.W. nearly dry; general depths over bar are 16½ft OHWS., and 12ft at N. **W.** prev. SW. **Ry.** L.B. & S.C. **Tr.**—I. Wood, coal, slate, cement, corn; E. Hoops, timber, &c. **LV.** *William Miles*, 574 reg. tons. **Accn.** Berths of soft level mud; harb. easy of access in all weathers. Messrs. Harvey & Co.'s Patent Slip is 300ft long, 40ft wide, with a depth at ST. of 16½ft, and NT. 12½ft, capable of taking in vessels of 400 reg. ton. Cranes to lift 5 tons by arrangement with Railway Co.

Charges.—Harb. dues, coasting vessels 2d reg. ton; from foreign ports 3d ton. Ballast 1/ ton.

Pilotage. District. Undefined. **Rates.** 2d per ton inwards and 1d outwards, but if vessel goes beyond Ford then one-half more than the above charges.

Towage.—4d reg. ton in and out.

Officials.—Harb. Master and Coll. of Dues, W. Sewell; Acting Coll. of H.M. Cust., W. Scovell; Station Supt. and Wharfinger, E. Briggs; Town Clerk, A. Shelley.

Hotels.—"Terminus," "Norfolk," "Beach," "Marine," and "Grand."

LITTLESTOKE, Somerset. Bristol Channel. No authority. A pier, 200yds long, used by coasters of about 40 tons.

LIVERPOOL. On the Mersey. Lat. $53^{\circ} 24' 57'' N$; long. $3^{\circ} 12' 1'' W$. **Pop.** 600,000. **Auth.** Mersey Docks and Harbour Board, under Act 5 and 6 Vict., c. 110, Mersey Docks and Harb. Act, 1857, Mersey Dock Acts Consolidation Act, 1858. **P. C.** **THW.** f. and c. 11h 23m; **Sp.** rise 27½ft; **N.** rise 13ft. The area of anchorage for large ships on the Mersey is about 2,000 acres, and for small boats about 500 additional acres. The approach to this anchorage is by the bar of the Mersey, the depth varying from 11ft at LWST. to 40ft at HWST. The length of quay walls on the river sides outside the docks is 8 miles. **W.** prev. are from two opposite quarters, viz., NW. and SE., about equal in days throughout the year. SE. winds are off shore, and bring fog, but otherwise generally harmless. NW. winds make a lee shore, and may become dangerous. **Rys.** C.L.C., G.W., L. & Y., L. & N.W., M. **Tr.** The second port in magnitude in the U.K. No vessels enter at LWST. Vessels are docked only during the time between two hours before HW. and one hour after.

Name.	Width of Entrance.	Sill below Datum.	Water Area.	Lineal Quayage.
	ft. in.	ft. in.	acres. yds.	miles. yds.
Hornby Dock	S 50 0	12 0	16 3,769	0 1,430
" Branch	S 50 0	ODS.	0 3,354	0 308
Alexandra	E 60 0	12 0	17 4,055	0 1,085
"	W 60 0	12 0	—	—
Alexandra Branch, No. 3	—	—	7 3,420	0 846
" " No. 2	—	—	9 2,657	0 1,024
" " No. 1	—	—	9 573	0 983
Langton	SE 50 0	9 0	18 589	0 1,322
" Lock (238 ft. long) S'th	W 65 0	12 0	0 1,719	0 160
" " (119 ft. long)	E 65 0	12 0	0 860	0 81
" Branch	60 0	12 0	2 4,549	0 671
Brocklebank	S 80 0	7 9	11 1,010	0 1,002
" " " " West	S 60 0	7 9	—	—
" Lock (110 ft. long) "	N 32 0	6 0	—	—
" " " " "	M 20 0	6 0	—	—
North Carriers'	W 40 0	6 0	3 3,423	0 1,641
South Carriers'	W 40 0	6 0	1 4,515	0 615
Canada Lock (498 ft. long)	100 0	7 9	1 3,479	0 487
" Dock	E 50 0	6 6	17 4,043	0 1,272
" " " " "	W 80 0	6 6	—	—
Huskisson	—	—	14 3,451	0 939
" Branch (No. 2)	—	—	8 780	0 890
" " (No. 1)	—	—	7 592	0 910
" Lock (338 ft. long)	SE 80 0	6 6	0 4,682	0 342
" " 363 "	W 45 0	6 0	0 3,650	0 330
Sandon	70 0	6 6	10 100	0 867
Wellington Half-tide .. North	E 70 0	6 9	3 813	0 400
" " " " "	W 50 0	6 6	—	—
" Dock	70 0	6 6	7 4,120	0 820
Bramley-Moors	N 60 0	6 0	9 3,106	0 935
" " " " "	S 60 0	6 0	—	—
Nelson	60 0	6 6	7 4,786	0 803
Canal Basin, Lightbody St. ..	W 18 0	ODS.	0 920	0 110
Stanley Lock	W 18 0	2 6*	—	—
Collingwood Lock	W 18 0	3 6	—	—
Salisbury Lock	W 18 0	—	—	—
" " Inner Sill ..	—	2 6	—	—
" " Outer " ..	—	5 0	—	—
Stanley Dock	W 51 0	5 8	7 120	0 753
Collingwood	W 60 0	6 9	5 244	0 553
Salisbury	N 60 0	6 11	3 2,146	0 406
" " " " "	S 50 0	6 11	—	—
Clarence Graving Dock Basin ..	N 45 0	4 9	1 1,056	0 291
" " " " "	W 44 6	4 6	—	—
" Half-tide	W 50 0	5 0	4 1,794	0 635
" Dock	W 47 0	3 2	6 273	0 914
Trafalgar Lock	N 45 0	6 7	0 2,937	0 256
" Dock	N 44 3	6 7	5 4,546	0 764
Victoria	N 45 0	4 11	5 3,559	0 755
" " " " "	S 50 0	6 6	—	—
West Waterloo	S 60 0	8 0	3 2,146	0 533
East	S 60 0	8 0	2 3,375	0 506
Prince's Half-tide Dock West ..	N 65 0	8 0	4 3,250	0 429
" Lock (110 ft. long) " ..	M 32 0	8 0	—	—
" " " " "	S 65 0	8 0	—	—
Prince's Dock	N 45 0	5 11	11 1,490	0 1,178
George's	—	—	5 154	0 645
" Dock Passage	N 36 0	4 6	0 2,439	0 356
" " " " "	S 40 3	—	—	—
Manchester	W 32 10	0 3*	1 595	0 339
" Lock (86 ft. long) ..	W 33 8	3 9	0 315	0 57
Canning Dock	W 45 0	6 1	4 376	0 585
" Half-Tide .. West ..	N 45 0	6 3	2 2,688	0 429
" " " " "	S 45 0	6 3	—	—
Albert	N 45 0	6 4	7 3,542	0 885
" " " " "	E 45 0	6 0	—	—
Salthouse	N 45 0	6 0	6 2,019	0 784

		ft.	in.	ft.	in.	acres.	yds.	miles.	yds.
Wapping Basin	N	50	0	5	8	1	3,151	0	454
" "	S	50	0	6	0	—	—	—	—
" "	W	40	0	6	0	—	—	—	—
" Dock	W	50	0	6	0	5	499	0	815
" "	S	50	0	6	0	—	—	—	—
King's Dock	S	42	0	5	0	7	3,896	0	875
Queen's Half-tide	N	70	0	8	9	3	3,542	0	445
" "	S	50	0	6	9	—	—	—	—
Trafford Dock and Lock	O	30	0	0	3*	0	4,102	0	419
Queen's Dock	I	30	0	1	3*				
" "	W	50	0	6	6	10	1,564	0	1,214
Coburg "	S	60	0	6	6	—	—	—	—
Canal Dock, E. of Brunswick }	70	0	6	0	8	96	0	1,053	
Dk.(less R'way Co.'s portion) }	25	0	1	0	0	4,635	0	450	
Brunswick	N	60	0	6	6	12	3,010	0	1,086
" "	W	42	0	5	6	—	—	—	—
" Half-tide	W	45	0	6	0	1	3,388	0	491
Toxteth Dock	S	60	0	12	0	11	958	0	1,134
" Lock (177 ft. long) ..	W	50	0	8	0	0	1,013	0	118
Harrington Dock	S	60	0	12	0	9	256	0	1,023
" Lock (131 ft. long) ..	W	22	0	5	9	0	320	—	—
Herculaneum	N	80	0	12	0	7	2,581	0	596
" "	S	60	0	12	0	—	—	—	—
" Branch	—	—	—	—	—	2	853	0	577
Total Water Area and Quay Space of the }						361	1,513	23	1,596
Liverpool Docks									

* Sill above Datum.

Birkenhead Docks:—

Name.	Width of Entrance.	Sill below Datum.	Water Area.	Lineal Quayage.
	ft. in.	ft. in.	acres. yds.	miles. yds.
West Float	E 100 0	7 6	52 319	2 210
Basin near Canada Works	W 50 0	—	1 2,554	0 543
" "	E 50 0	—	1 84	0 390
East Float	—	—	59 3,786	1 1,506
Corn Warehouse Dock	30 0	O.D.S.	1 453	0 555
Railway Companies' Basin	—	—	0 606	0 113
Wallasey Dock	—	—	12 3,813	0 1,261
Passage to ditto	49 2	9 0	0 1,333	0 234
Inner Northern Entrances	N 100 0	9 0	—	0 242
Lock, 198 ft. long	M 30 0	—	0 667	0 264
Inner sill	—	9 0	—	—
Outer sills	—	12 0	—	—
Lock, 274 ft. long	S 50 0	—	0 1,522	0 300
Inner sill	—	9 0	—	—
Outer sills	—	12 0	—	—
Alfred Dock	—	—	8 2,922	0 482
Outer Northern Entrances :				
Lock, 348 ft. long	N 100 0	12 0	0 3,888	0 352
Lock, 198 ft. long	M 30 0	12 0	0 667	0 377
Lock, 398 ft. long	S 50 0	12 0	0 2,222	0 391
Egerton Dock	W 70 0	7 4	3 4,011	0 754
Morpeth Dock	W 70 0	5 5	11 2,404	0 1,299
Railway Company's Basin	S 25 0	O.D.S.	0 3,144	0 319
Morpeth Branch Dock	W 85 0	—	4 243	0 637
Morpeth Lock, 398 ft. long	E 85 0	12 0	0 3,777	0 441
Total Water Area and Quay Space of the Birkenhead Docks			159 4,535	9 110

Summary :—

Name.	Water Area.		Quayage.	
	acres.	yds.	miles.	yds.
Liverpool Docks.....	361	1,513	23	1,596
Birkenhead Docks.....	159	4,535	9	110
Total	521	1,208	32	1,706

There are twenty-three Graving Docks—viz., Liverpool :—

Name.	Position and Width of Entrance.	Sill below Datum.	Coping at Hollow Quoins above Datum.	Length of Floor.	Total Length of Floor.	
	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	
Langton...No. 1 S. {	Outer ...	60 0	6 0	27 0	448 0	
	Inner ...	60 0	6 0	22 0	500 0	
	Outer ...	60 0	6 0	27 0	500 0	
	Inner ...	60 0	6 0	22 0	448 0	
Huskisson Lock	80 0	6 6	26 0	...	1,896 0	
Sandon .....No. 1 {	East	60 0	3 6	26 0	395 0	
	"	70 0	3 6	26 0	565 0	
	"	60 0	3 6	26 0	565 0	
	"	70 0	3 6	26 0	565 0	
	"	45 0	3 6	26 0	565 0	
	West ...	45 0	3 6	26 0	565 0	
Clarence...No. 1 N. {	Outer ...	45 0	3 0	26 6	451 0	
	Inner ...	45 0	0 6	18 0	289 0	
	Outer ...	45 0	3 0	26 6	454 0	
	Inner ...	32 10	0 6	18 0	286 0	
Prince's.....	45 0	5 9	28 2	...	1,480 0	
Canning .....No. 1 {	North ...	35 9	1 6 1/2	23 3	277 4	
	South ...	35 9	0 1/2	23 3 1/2	436 0	
Queen's .....No. 1 {	East	42 0	1 8 1/2	27 7 1/2	482 0	
West ...	70 0	3 6	27 5	465 0	918 0	
Brunswick .....No. 1 {	East	41 0	2 6	26 6	460 0	
	West ...	41 6	2 6	26 6	462 0	932 0
Herculaneum, No. 1 {	West ...	60 0	4 0	26 0	758 6	
	Middle...	60 0	4 0	26 0	753 0	922 0
	East	60 0	4 0	26 0	768 0	2,279 0

Total length of floor of the Liverpool Graving Docks 12,489 10

* Sill above Datum.

NOTE.—The depth of water over the sills of the Sandon Graving Docks can be increased to any desired extent by pumping into the Sandon Dock from the River, so as to allow deep-draughted vessels to enter at low neap tides.

Birkenhead :—

Name.	Position and Width of Entrance.	Sill below Datum.		Coping at Hollow Quoins above Datum.	Length of Floor.		Total Length of Floor.
		ft.	in.	ft.	in.	ft.	in.
West Float ...No. 1	East	60	0	4	9	25	0
" " " " 2	Middle...	48	4	7	9	25	0
" " " " 3	West ...	85	0	7	9	25	0
							2,430 0
Total length of floor of the Birkenhead Graving Docks.....							2,430 0
" " " " Liverpool " "							12,489 10
Total							14,919 10

The warehouse accommodation is extensive, and every modern appliance for dealing with the largest ships of the world and their cargoes is provided.

Charges.—On vessels entering the docks, dock tonnage rates; not entering the docks, harb. rates, with wharf rates if piers, landing stages, or quays be used. On goods, if imported or exported, foreign, dock rates and town dues; if coastwise, town dues only.

Pilotage.—District. Compulsory inward pilotage extends from the Middle Mouse, on the coast of Anglesea, to the river Mersey; and compulsory outward pilotage from the Mersey to the fairway buoys of the sea channels of the Mersey. **Rates.** Inwards:—From Middle Mouse Island, on the true bearing of south, or from any point between the Middle Mouse and Great Orme Head Lighthouse on the same bearing 9/; from Great Orme Head Lighthouse on the true bearing of south, or from any point between the Great Orme Head Lighthouse on the above bearing and the Queen's Channel bar 8/ foot. Outwards:—To the bar light vessel, if the vessel proceeds through the Queen's Channel, or to the north-west buoy of Hoyle, if the vessel proceeds through the Rock Channel, 4/ foot; coasting vessels pay one-half of the above rates in proportion for every half-foot, but no allowance is made for any dft. above or under half a foot, and no vessel shall pay for less than 8ft; from any point between Middle Mouse and Ormes Head to Liverpool 9/* inwards; from any point between Middle Mouse and Ormes Head to Beaumaris or Holyhead 10/; from any point between Middle Mouse and Ormes Head to Lancaster Sound or Pile a Foudre 13/; from Ormes Head to Liverpool 8/*; from Liverpool to bar lightship or Horse Channel, fairway buoy 4/* outwards; to river Dee 8/; to Lancaster Sound, Pile a Foudre, or Beaumaris 10/; to Ormes Head 8/; to Point Lynas or Isle of Man 9/; to Holyhead 11/6; to Tuskar, Bristol Channel, Clyde, or Belfast 14/; to Start Point 19/; to Dungeness 24/; Liverpool, trial trip, not farther than NW. lightship and back 8/* foot; coasting vessels one-half the above rates; every additional foot and every half foot charged proportionately, but no allowance made for

* The rates marked * are compulsory.

anything under half a foot. All vessels drawing less than 8ft to be charged the 8ft rate. Transporting Rates and other Pilotage Charges :—For a vessel of any dft., from any dock in Liverpool or Birkenhead, or river, to any other dock in Liverpool or Birkenhead, or river 20/; ditto, Garston, or *vice versa* 40/; ditto, any landing-stage or pier and back to river or dock 20/. If the services of a pilot be required on board a vessel while at anchor in the river Mersey, day 5/. If a pilot be carried away under circumstances of unavoidable necessity, he shall be allowed 10/6 day for every day and part of a day until he can return to duty; and if he be landed to find his way back to Liverpool, from any of the undermentioned places, or if he be sent to a vessel at any of the said places, he is to be allowed travelling expenses as follows—viz., to or from Mostyn or any place on the western shore of the river Dee, or Fleetwood 10/; for any greater distance not further than from Holyhead or Pile a Foudre 20/; ditto Dublin 30/; ditto Glasgow, Belfast, Waterford, or Bristol Channel 40/; ditto Queenstown or Londonderry 50/. All inward-bound ships, except coasting vessels in ballast or under 100 tons register, are subject to compulsory pilotage, and must display a signal for a pilot on coming within the limits of the outer pilot station, viz., when the Middle Mouse bears S. by W. $\frac{1}{2}$ W. by compass, under a penalty of £5, and must take a pilot from the first pilot boat which shall display the usual signal offering a pilot, under a penalty of double pilotage in each instance of omission to take a pilot when offered. Outward-bound ships liable to compulsory pilotage must take the first pilot who offers.

Towage.—

Ship's Tonnage.	Direct to Bell Buoy.	Orme's Head.	Point Lynas.	Skerries.	Holyhead.	Bardsey.	Tuskar.
150 to 200 ..	5	10	14	17	20	28	40
200 " 300 ..	6	11	15	18	21	30	45
300 " 400 ..	7	12	16	19	22	32	48
400 " 600 ..	8	14	18	22	26	38	55
600 " 700 ..	9	15	20	24	28	42	60
800 " 1,000 ..	10	17	22	27	32	46	65
1,000 " 1,300 ..	12	20	25	30	35	52	75
1,300 " 1,600 ..	13	21	28	33	38	56	80
1,600 " 2,000 ..	14	23	30	36	42	62	90
2,000 & upwards	15	25	33	40	47	70	100

Extra towage for vessels over 800 tons 50/, and under 800, 40/ per hour. River Towage:—

From.	Pier to River.	Pier to Pier.	River to Pier.
Tons.	£ s. d.	£ s. d.	£ s. d.
150 to 200	2 0 0	2 0 0	2 0 0
200 " 300	2 0 0	3 0 0	3 0 0
300 " 500	3 0 0	4 0 0	5 0 0
500 " 1,000	4 0 0	5 0 0	6 0 0
1,000 " 1,200	5 0 0	6 0 0	7 0 0
Upwards	5 0 0	6 0 0	8 0 0

River to Garston, under 200 tons £4; under 400, £5; under 800,

£8; over 800, £10. From south of Tranmere Slip to any pier north of Prince's Dock Basin £3 extra; from any part of the river to Brunswick Pier £2 extra. These extra charges apply to vessels over 800 tons; for vessels under 800 tons £1. Hanging-on in river. —Vessels under 700 tons 30/ hour; above 700 tons 40/ hour. Attendance on vessels clearing anchors.—Over 800 tons 50/; under 800, 40/ hour. On ships.—For the first three hours £2 hour, and 30/ hour for any number of hours beyond the first three. If employed from 6 a.m. to 6 p.m., or 6 p.m. to 6 a.m. £11 11s. All the above rates exclusive of the use of hawser. To sea or down Channel, and tug ordered to return with ship, to be paid the full, and one-half towage for distance towed. From pier or river to between Rock and Crosby Lightship and back to river, half towage to Bell Buoy; from pier or river to between Crosby and Formby Lightships and back to river, full towage to Bell Buoy; from pier or river to between Formby Lightship and Bell Buoy and back to river, full and half towage to Bell Buoy. Towage charged by the hour if the tug is taken beyond the stage agreed upon. If a tug is engaged to tow a ship to any port or station, but through stress of weather or other unavoidable circumstances she is separated from the ship, the tug to be paid *pro rata* for the distance towed. All engagements made for towing from sea to be to river only, unless the vessel can be taken direct to the pier on the same flood tide as she is towed up. When a tug is ordered, attends, and is not employed, the vessel to pay one-half the rate of towage of such ship from pier to pier. NOTE.—Other towage rates are sometimes substituted for these by special agreement. Charge for hawsers.—Under 500 tons: In river £1; Bell Buoy £2; beyond Bell Buoy £4; beyond Holyhead £5. Over 500 tons: In river £2; Bell Buoy £4; beyond Bell Buoy £8; beyond Holyhead £10.

Officials.—Sec., E. Gittins; Engineer, G. F. Lyster; Harb. Master, H. M. Liardet; Supt. of Pilotage, R. P. J. Simpson; Water Bailiff, F. O. Simpson; Assist. Harb. Masters, D. E. K. Grant, G. Wilson, T. J. Shepherd; Dock Masters, W. Parry, J. T. Gould, C. Leggett, W. Long, S. Molyneux, J. Sanders, O. Pritchard, G. Palmer, J. L. Harris, R. A. Crafter, W. Wilson, J. T. Partridge, D. R. Dean; Traffic Mans., G. B. Proctor, supt., T. W. Hawkins, R. Sutherland, J. Garniss, J. Grundy, L. J. Watson, F. E. Sharpe; Dock Warehouse Supts., G. B. Proctor, L. Simpson, W. S. Brice; Principal Examiner, W. Maddon; Receivers of Dues, T. J. Farrell, J. Halsall, J. H. Montgomery, E. James.

LLANDULAS, Carnarvonshire. Near River Clwy. There are 4 jetties used for loading stone, but no harb. A lifeboat station.

LLANELLY, Carmarthenshire. On the river Bury, 14 miles S by E. of Carmarthen. Lat. 51° 40' N; long. 4° 0' 25" W. Pop. 24,000. Auth. Harbour Commissioners, acting under Acts 53 Geo. III., c. 183; 6 and 7 Vict., c. 88; 21 and 22 Vict., c. 72; 27 and 28 Vict., c. 203; 31 and 32 Vict., c. 132; 41 Vict., c. 83. P. C. THW. 6h. 16m; Sp. rise 25ft; N. rise 18½ft. D. on bar at LWST. 6 to 8ft. W. prev. SW. Rys. L. & N.W. and G.W. Tr.—I. General; E. Metals and general. LV. 1,000 to 1,100 tons.

Docks, &c. :—

Name.	Accom'dates Vessels of Draft.	Length.	Width. En.gates	Remarks.
Llanelly or New Floating Dock	ft. 17	ft. —	ft. 31½	For v. of 17ft dft.
Copper Works Dock	17	—	31	" "
Lead Works or Pemberton Dock	—	—	—	Dries.
Carmarthenshire Patent Slip Cradle	reg. ton. 500 —	380 150	21 —	{ For v. of 14ft at ST. and 8ft at NT.

Charges.—Dues 1d ton on all goods, and 1d package as per tariff. Buoyage dues 1d reg. ton ; light dues ¼d ton.

Pilotage.—**District.** All vessels bound in over Burry Bar shall hoist a pilot signal immediately they pass a line drawn from the Helwick Lightship to Caldy Light. No definite marks laid down. No pilots are to quit the vessels under their charge until the Worm's Head be open from Burry Holmes, unless the captain directs. The cruising ground is from W. of the Helwick Lightship and E. of the Worm's Head. **Rates.** Station No. 1, W. of Helwick Light :—Under 100 reg. tons 1/6 ; and 1/ additional for every 25 tons. Station No. 2, E. of Helwick W. Worm's Head :—Under 100 reg. tons 1/ ; and 1/ additional for every 25 tons. Station No. 3, E. of Worm's Head :—Under 100 reg. tons 1/ ; under 125, 1/6 ; under 150, 2/ ; under 175, 2/6 ; and 1/ in addition for every 25 tons. Rules for the payment of pilots' hobbles taking charge of ships or vessels trading over the bar, and bound to Llanelly, Pembrey, Burry Port, and upwards as far as Llangennech. Limit No. 1 :—If a pilot be taken on board as far to the westward as to bring Rhossilly Church open to the westward of the Holmes, under 40 reg. tons 1/9 ; with an advance of 3d foot on every additional 25 reg. tons. Limit No. 2 :—If taken on board within No. 1, but to the westward of No. 4 buoy for Burry Port, or No. 6 for Llanelly, under 50 reg. tons 1/ ; and 3d foot for every additional 25 reg. tons. Pilots taken on board inside buoy No. 6 when bound for Llanelly, or inside No. 4 when bound for Pembrey, 2/6 each for hobble. If any vessel shall evade being boarded by a pilot in limit No. 1, she must pay for limit No. 1, although boarded above that limit, beside the penalty of refusing a pilot. Outwards :—Under 50 reg. tons 6d ; and 3d for every additional 25 reg. tons. Each vessel to pay 1/ for the boat. Vessels proceeding above Llanelly pay as follows, in addition to the rates inwards and outwards from Llanelly :—From Llanelly to Penclawdd, under 50 reg. tons 3/6 ; from 50 to 100, 4/6 ; from 100 to 150, 5/6 ; from 150 to 200, 7/ each vessel. To Spitty, and *vice versa*, under 50 reg. tons 5/ ; from 50 to 100, 7/ ; from 100 to 150, 9/6 ; from 150 to 200, 10/6 each vessel. And from Penclawdd to Spitty, and *vice versa*, as follows :—Under 50 reg. tons 3/6 ; from 50 to 100, 4/6 ; from 100 to 150, 5/6 ; from 150 to 200, 7/ each vessel. The following rates of harbour pilotage for all vessels under 50 reg. tons 2/ ; under 75, 2/6 ; under 100, 3/ each vessel ; and 6d for every 25 reg. tons. For removing from or to Llanelly and Pembrey :—Under 50 reg. tons 3/6 ; under 75, 4/6 ; under 100, 5/6 each vessel ; and 1/ for every additional 25 tons. For removing from Pembrey Harb. to Burry Port, and *vice versa* :—

Under 50 reg. tons 3/6; under 75, 4/; under 100, 4/6 each vessel; and 6d extra for every additional 25 reg. tons.

Officials.—Clerk to Harb. Comm., J. Jennings; Harb. Master Llanelly, Capt. T. Jones; Dock Master Llanelly Ry. & Dock Co.'s Dock, Capt. Lowther; Dock Master Cambrian Dock, J. Gibson, Dock Master Copper Works Dock, J. Gibson; Resident Superintendent of Llanelly Ry. Dock Co., W. H. Ludford; Coll. of Dues, Pilotage, &c., A. Stone; Coll. of H.M. Cust., J. T. Hynes.

LONDON. The capital of the United Kingdom. Lat. $51^{\circ} 30'$ N; long. $0^{\circ} 5' W$. On the River Thames about 50 miles from its mouth. The limits of the port are from London Bridge to the Naze at Walton. The River Thames is under the jurisdiction of the Thames Conservancy Board, whose rights extend from Cricklade to Yantlet Creek, and to the Crow Stone near Leigh in Essex. All along the river on both banks are numerous warehouses, and wharves where vessels may load and discharge, all these being provided with hydraulic and steam cranes, &c. These are owned principally by private firms, Railway Cos., &c. The shallowest part of the navigable channel of the estuary is to the south of the Leigh Middle Bank, about a mile above Southend, where the depth is 24ft at LWOST. HW. f. and c. at London Bridge at 1h 58m; Sp. rise 20½ft; N. rise 17½ft. There are four principal Dock Cos.—THE LONDON & ST. KATHARINE's, the EAST & WEST INDIA (who own the Docks at Tilbury), and the MILLWALL, on the north side of the river, and the SURREY COMMERCIAL DOCKS on the south side.

Harbour Dues, payable to the Thames Conservancy, are from ½d to ¾d per ton.

Pilotage.—Rates for Pilots licensed by the Corporation of Trinity House of Deptford Strond, or acting as such under the authority of the Acts of Parliament, 6 Geo. IV. c. 125, 16 and 17 Vict. c. 129, and 17 and 18 Vic. c. 104, for piloting ships and vessels within the limits mentioned in the table on pp. 219, 220. From sea in or out of Ramsgate, Margate, Dover, or Sandwich Harbs. 5/ft dft. For vessels ex. 22ft an increase in the rates for each foot or part of a foot, in the same proportion as between 22 and 23ft. For putting a pilot on board a vessel, either from the cutters or from the shore, 60 and under 150 tons 20/, 150 and under 250, 25/, 250 and under 400, 30/, 400 and under 600, 40/, 600 and under 1,000, 50/, 1,000 and upwards 63/. Vessels not ex. 70 tons, chiefly laden inwards with fish, corn, or other provisions, pay during the summer months, viz., from Lady-day to Michaelmas-day inclusive, the following rates, viz., from sea to London or *vice versa* 94/6, Gravesend to London or *vice versa* 25/. Vessels ex. 70 tons and not ex. 100 tons, chiefly laden inwards with fish, corn, or other provisions, pay during the summer months, viz., from Lady-day to Michaelmas-day inclusive, the following rates for the outward voyage, viz., from London to Gravesend 25/, to the Nore 58/, to the sea 105/. A pilot taking charge of a foreign vessel, on board of which there may not be any individual qualified to interpret his orders, is authorised to employ a person to assist him as leadman or interpreter; provided it be distinctly understood that the necessity for the employment of such person shall be proved to the satisfaction of the Corporation of Trinity House, in which case only the following rates shall be chargeable in addition to the regular pilotage, viz., for the whole run from sea to Gravesend 50/, from Gravesend to sea 20/. The additional rate, for intermediate portions of a foot, in the

FROM	TO	7ft. and under.	8ft.	9ft.	10ft.	11ft.	12ft.	13ft.	14ft.	15ft.	16ft.	17ft.	18ft.	19ft.	20ft.	21ft.	22ft.	23ft.											
Male of Wight, and <i>vice versa</i> Off Dungeness to off Folke- stone, the Church bearing NNW. by compass, and <i>vice versa</i>	The Downs	3	104	04	105	05	106	06	107	7	2	7	14	8	9	9	4	10	4	11	4	12	14	4	16	4	18	4	
Ditto	Ditto	0	181	01	21	41	61	81	101	1	13	1	16	2	0	4	2	9	2	14	3	0	3	6	3	16	4	6	
Off Folkestone to the South Foreland: the Lights in one, and <i>vice versa</i>	Ditto	0	100	120	140	160	181	01	2	1	5	1	8	1	12	1	16	2	1	2	6	2	12	2	18	3	6	3	14
The Nore or Warps	The Nore or Warps	3	53	14	4	34	125	15	105	19	6	9	6	19	7	15	8	11	9	11	10	11	11	16	13	14	16	16	11
Sheerness, Stangate Creek, or Blackstake	Sheerness, Stangate Creek, or Blackstake	3	144	54	165	75	186	97	0	7	13	8	6	9	4	10	2	11	7	12	12	14	4	15	16	17	16	19	16
Gravesend or Chatham	Gravesend or Chatham	4	34	165	96	26	157	88	1	8	16	9	11	10	11	11	11	13	14	11	16	11	18	11	20	16	23	1	
Pilots (In or out) continuing in charge to or from any of the following places are to be paid:—																													
The Sea, the Downs, Orfordness, or Hosen- ley Bay, and <i>vice versa</i>	Long Reach or Greenhithe .. Erith	4	75	15	156	97	37	178	11	9	6	10	1	10	10	11	17	13	12	15	7	17	12	19	7	22	7	24	17
	Woolwich or Blackwall	4	125	66	06	147	88	28	16	9	12	10	8	11	8	12	8	14	8	16	8	16	13	20	18	23	13	26	8
	Moorings, London Docks, City Canal, or St. Kath.'s Docks ..	4	145	96	46	197	148	99	4	10	0	10	16	11	16	12	14	16	16	16	19	6	21	16	24	11	27	6	
	Greenhithe, Long Reach, or Chatham	5	05	156	107	58	08	159	10	10	7	11	4	12	4	13	4	15	9	17	14	20	4	22	14	25	14	28	14
	Erith	2	22	72	122	173	23	73	12	3	18	4	4	12	5	0	5	10	6	0	6	15	7	10	8	8	9	16	
	Woolwich or Blackwall	2	52	112	173	33	93	154	1	4	8	4	15	5	6	5	17	6	12	7	7	8	5	9	3	10	8	11	13
	Moorings, London Docks, City Canal, or St. Kath.'s Docks ..	2	102	163	23	83	144	04	6	4	16	5	6	5	18	6	7	5	8	0	9	0	10	0	11	10	13	0	
	Sheerness, Stangate Creek, or Blackstake	2	183	53	123	194	64	135	0	5	10	6	0	6	12	7	4	8	4	9	4	10	9	11	14	13	4	14	14
	Gravesend	0	171	01	31	61	91	121	15	1	18	2	2	6	2	10	2	14	2	18	3	2	3	6	3	10	3	14	
	Woolwich or Blackwall	1	152	2	52	102	153	03	5	3	11	3	17	4	5	4	13	5	5	7	6	13	7	9	8	9	9	9	
	Moorings, London Docks, City Canal, or St. Kath.'s Docks ..	0	150	181	11	41	91	141	19	2	5	11	2	18	3	5	13	4	1	4	11	5	1	5	1	13	6	5	
Erith Reach and <i>vice versa</i>	Erith Reach and <i>vice versa</i>	1	1	41	71	101	152	02	5	2	11	2	17	3	4	3	11	3	19	4	7	4	17	5	7	5	19	6	12

[illegible]

4*l*. to be regulated as follows, viz., for 3*in* and under no addition, for more than 3*in* and under 9*in*, the medium between the two rates, for 9*in* and upwards, the rate for the next foot. For removing a ship or vessel from moorings into a dry or wet dock, or from one part of the river situated above Blackwall to another part of the river so situated, for a ship under 300 tons 1*s* 6*d*, of 300 to 600, 2*l* 6*d*, of 600 to 1,000, 3*l* 6*d*, above 1,000, 4*l*. In the Thames above Gravesend, for a boat of a class carrying an anchor of above 4 cwt with a corresponding tow-line 4*l*, for a boat of a class carrying an anchor of above 2 cwt, 3*l* 6*d*, for a boat of a class carrying an anchor under 2 cwt, 1*l* 5*d*. Per trip for the whole distance from Gravesend to London, 2*l* 1*d* in proportion for any part of that distance, and for each man's service in those boats 8*d* per tide.

Officials.—Sec. to Thames Conservancy, J. H. Gough; Harb. Masters—London, Capt. L. Bowen; Charlton, Commr., Fitzgerald, R. N.; Gravesend, Capt. R. Marsden; Controller-Gen. H. M. Cust, J. J. Weir; Coll. H. M. Cust, H. Fitzgibbon.

Towage.—As per agreement.

Officials.—Sec. to Thames Conservancy, J. H. Gough; Harb. Masters—London, Capt. L. Bowen; Charlton, Commr., Fitzgerald, R. N.; Gravesend, Capt. R. Marsden; Controller-Gen. H. M. Cust, J. J. Weir; Coll. H. M. Cust, H. J. Jindray.

PARTICULARS OF VARIOUS DOCKS IN LONDON.

B.—Blackwall.

L₂—Limehouse.

THW.—Trinity High Water.

Name of Dock.	Area.	Width of entrance.	Length between gates.	Depth on sill THW.	Outer LW depth.	Owned by.
	acs.	ft. in.	ft.	ft. in.	ft. in.	
London	40					London & St. Kath. Docks Co.
Shadwell, No. 1	—	60	350	28	8	
" " No. 2	—	45	180	26	—	
Wapping	—	40	167	23	—	
Hermitage	—	40	150	20	—	
St. Katharine's	10	45	180	28	8	
Royal Victoria	90	80	330	28	8	
Royal Albert, No. 1.....	87	80	550	36	16	East & West India Docks Co., Ltd.
" " No. 2.....	—	80	550	30	10	
West India Import	30	{ B45 { L36	{ B162 { L150}	{ B241 { L22	{ B201 { L171	
West India Export.....	24	{ B38 { L36	{ B160 { L151	{ B211 { L18	{ B18 { L131	
South-West India.	261	55	no lock	27	231	
Junction Dock.	1	45	"	25	211	
River Entrance.	—	36	155	22	21	
Blackwall Basin.....	61	—	—	—	—	East & West India Docks Co., Ltd.
River Entrance.	—	45	1911	221	21	
South Dock Basin.	51	—	—	—	—	
South Dock, River En. B. Do.	—	55	300	27	61	
East India Import.....	171	471	209	24 10	21 1	
Do. Export.....	8	50	—	25 10	211	
Do. Basin.	6	—	—	—	—	
Upper River Entrance... Do.	6	47 5	2101	24 10	51	{ Mil. Dock Co., Ltd.
Lower Do.	6	65	100	31	111	
Collier Do.	51	30	100	20	161	
Tilbury Tidal Basin. Do. Main Dock.	171	300	—	45	26	
	23	80	555	45	26	
Millwall.....	38	80	450	28	—	
Albion.	111	—	—	—	—	
Basin.	21	—	—	—	—	SURREY COMMERCIAL DOCKS. There are four river entrances to these Docks, viz.—
Canada.	151	—	—	—	—	
Island.	31	—	—	—	—	
Stave.	51	—	—	—	—	
Russia.	14	—	—	—	—	
South.	16	—	—	—	—	
Greenland.	91	—	—	—	—	
Norway.	31	—	—	—	—	
Lady.	81	—	—	—	—	
Timber Ponds.....	73	—	—	—	—	
				ft.	ft.	ft.
The South Dock.				220	48	28
Greenland Dock.				209	421	181
Lavender Dock.				320	34	181
Surrey Dock.				250	50	28

Now under the London and India Docks Joint Committee.

Now under the London and India Docks Joint Committee.

THE LONDON & INDIA DOCKS JOINT COMMITTEE, under the London & St. Katharine and East and West India Docks Act, 1888, are now working the undertakings of both the London and St. Katharine's, and the East and West India Docks.

THE LONDON & ST. KATHARINE DOCKS. In addition to the above docks, an extensive railway dépôt in East Smithfield (in connection with the docks); and the Cutler-street warehouses, in Houndsditch and Bishopsgate, City. The *St. Katharine Docks* adjoin the *London Docks*. Both these docks have large warehouses and sheds specially adapted for housing, working, and showing wool, tea, coffee, indigo, cigars and manufactured tobacco, dried fruits, sugar, flour, ivory, spices, bark, gums, metals, drugs, cotton, bacon, &c. The vaults beneath the

warehouses hold about 65,000 pipes of wine, 10,000 puncheons of spirit, 6,500 tons of oil, 50,000 hogsheads of brandy, 8,000 puncheons of rum. The *Royal Victoria Docks* are just below Blackwall. The *Royal Albert Docks* are a prolongation of the *Royal Victoria Docks*, with which they are connected by a short passage, 80ft long. The two docks are together 2½m long. The new deep-water entrance to the *Royal Albert Docks*, which provides a third means of access to the docks, where vessels of large size may lie, is 550ft long by 80ft wide, and has 36ft of water, allowing margin for the largest draught merchant vessels afloat, and there is also extensive wharfage accn., and a large landing-stage upwards of 1,000ft long. These docks are in direct communication with the *London and St. Katharine's Docks* and all the different railways. In the *Royal Victoria Dock* is special accommodation for receiving and storing Australian and New Zealand sheep and American beef and mutton in refrigerating chambers capable of holding 60,000 carcasses at a time. Special facilities also for landing and storing grain. Extensive shed accn. Docks are lighted by electric light, and afford accn. for the largest vessels. In the *Albert Docks* are two dry docks, one 502ft. in length, the other 410ft. The *Gallions Hotel* (*Albert Dock*) is the property of the Dock Co. The Railway Depôt, East Smithfield, is connected with the docks by frequent trains. Here goods are distributed for the warehouses, for London, and for all parts of the kingdom. The Cutler-street warehouses occupy four acres in the centre of the City, and are largely used for the storage of valuable property. There are cranes of the most approved type provided throughout the entire system of docks, and there is also a floating steam crane capable of lifting 30 tons, available for service at any part of the docks; together with shear-legs, worked by steam, to lift heavy weights up to 60 tons, and a hydraulic crane to lift about 15 tons. The charges of THE LONDON & ST. KATHARINE DOCKS CO. and the EAST AND WEST INDIA DOCK CO. include so many different classifications and special descriptions that space does not allow a record of them. Indeed the same remark applies equally to the charges of all the London companies.

THE EAST AND WEST INDIA DOCK estate comprises the *East India Docks* at Blackwall, the *West India Docks* at Poplar, the *Tilbury Docks* opposite Gravesend, the Depot in Commercial-road, and the warehouse in Crutched Friars. The *East India Docks* and *West India Docks* (213 acres of land and 127 acres of water, with warehouse accommodation for 212,000 tons,) are in direct communication with all the principal railways. The cransge power consists of 222 hydraulic and 19 steam cranes—also of two floating derricks (lifting power 20 and 30 tons respectively). At the *West India Docks* there is extensive accommodation for the timber trade and frozen meat business, also a depôt for wines and spirits (storage capacity 40,000 puncheons). The docks at *Tilbury*, about 20 miles from London Bridge, in direct communication with all the principal railways, comprise a tidal basin and inner docks, and some 450 acres of land. The quays of the tidal basin (water area 19 acres; depth from 45ft HWST. to about 26ft LWST.) are fitted with sheds and cranes for the discharge and loading of baggage and cargo. At the NW. quay there is a large business in transshipment and other goods to and from the Continent. On the SW. side of the basin a

coaling jetty with hydraulic cranes is provided for the discharge of coal from colliers into barges or railway trucks. A large hotel, fitted with all the most recent improvements and lighted by electricity, stands on the river bank within 100yds of the entrance and the baggage warehouse. The lock leading from the basin to the inner docks is 80ft wide and 700ft long. Parallel with the lock are 4 dry docks, which can be entered from either the basin or inner docks, the two larger (width 70ft, depth on sill 35ft) and the two smaller dry docks (width 60ft, depth on sill 27ft) have a length which can be varied (by means of movable caissons) from 400 to 550ft. The inner docks (depth 38ft) consist of a main dock (1,000ft long, 600ft wide) and three branch docks (1,600ft long, 300ft wide). The quays of these docks (1,300 ft in length) are fitted with 24 sheds (each 300ft long and 120ft wide), with lines of rail in front and at the back of each shed. The craning power consists of some 60 movable hydraulic cranes and leads, and a floating derrick capable of lifting 50 tons. Electric light is employed throughout the whole dock system.

Officials.—*Joint Committee:* Managers, H. W. Williams and E. H. Bailly; Secretary, H. J. Morgan. *London and St. Katharine's Dock Company:* Secretary, S. J. Becher. *East and West India Dock Company:* Secretary, J. G. Broodbank. *Superintendents:* G. Cox (*London and St. Katharine Docks*), T. Beck (*East and West India Docks*), W. Walker (*Royal Victoria Dock*), C. H. W. Haynes (*Royal Albert Dock*), R. Adams (*Tilbury Dock*), A. Champ (*Town Warehouses*): Chief Engineer, R. Carr; Dock Masters, Captain J. H. Duckham (*East India Dock*); Capt. W. E. Dove (*West India Dock*); Capt. T. F. E. Ayles (*Tilbury Dock*); Capt. G. D. Taylor (*London Dock*); Capt. Irvine Ross (*St. Katharine's Dock*); Capt. C. Hogg (*Royal Victoria Dock*); Capt. G. B. Linch (*Royal Albert Dock*).

Chief Office, Dock House, 109, Leadenhall Street, E.C.

THE SURREY COMMERCIAL DOCKS occupy nearly the whole of a peninsula in the Thames, between the Lower Pool and Limehouse Reach. The principal trade of these docks is in timber, grain, and seed. There are sheds for the storage of prepared wood goods covering about 20 acres, and granary accommodation for 300,000 qrs. The area of piling ground for the storage of wood cargoes is 222 acres. The length of the quayage available for use by vessels is about 5 miles. The Surrey Canal—the property of the Dock Company—which is over 4 miles in extent, and has an area of about 40 acres, runs from the docks at Rotherhithe to Camberwell, with a branch to Peckham. The docks are in communication with the L.B. & S.C. Ry., on the south of the Thames, and with the various railways on the north of the river. **Charges.**—Tonnage rates on steamers and sailing vessels vary from 3d to 1/ reg. ton. for dues, and 1/4d to 1d reg. ton for rent per week. Special rates for vessels wholly grain laden, and various exceptions and special rates.

Officials.—Sec., J. Griffin; Supt., S. Brownfield; Engineer, J. A. McConnochie; Dock Master, Capt. Welch.

Chief Office, Dock House, 106, Fenchurch-st., E.C.

THE MILLWALL DOCKS are situate on the Isle of Dogs, immediately south of the West India Docks. Land entrance from the Millwall Dock Station of the N.L. & B. Rys. River entrance from Limehouse Reach, just opposite the New (or South) Dock of the Surrey Commercial Dock Company and about two-thirds of

a mile south of the entrance to the South West India Dock. The entrance lock is 450ft long and 80ft wide, depth on sill, 28ft below Trinity H.W.M. It is crossed by the ferry road, opening on to the outer dock, which occupies the whole of the shorter, and about a third of the longer limb. The docks are in the form of the rather narrow gnomon of a parallelogram, about 800yds \times 600yds. The longer arm, running north and south, is 350ft wide, and the shorter arm, which runs east and west, also 350ft wide. The whole system covers about 204 acres—36 of water and 168 of land. The capacity of the docks is stated at "about 100,000 tons gross register." The docks are in communication with all the principal railway companies north of the Thames. The principal business is with steamers, chiefly to and from European and American ports. The chief imports are grain and timber.

Officials.—Gen. Man., G. R. Birt; Sec., H. J. Robinson; Supts. (outdoor), J. Campbell, (indoor) J. S. Wood; Dock Master, Capt. D. Home.

Offices, Dock House, 1, Railway Place, Fenchurch-st., E.C.

LONDONDERRY, Ulster. On the river Foyle, 23 miles from the sea. Lat. $55^{\circ} 1' N$; long. $7^{\circ} 18'$ W. Pop. 28,497. **Auth.** Port and Harbour Commissioners, under Acts 17 and 18 Vict., c. 177; 37 and 38 Vict. c. 49, and 45 and 46 Vict., c. 142. **P. C. THW.** f. and c. 8h 1m; Sp. rise $7\frac{1}{2}$ ft; N. rise 6ft. **D.** The channel winds towards Derry, with a depth of about 16ft, deepening as the town is neared from 3 and 4 to 6 and 7 fathoms near the S. end of the city. **Rys.** B. & N.C., G.N.R. & L. & L.S.R. **Tr.**—I. Timber, grain, iron, coal, flax, seed, flour, and guano; E. Principally agricultural produce. **Accn.** Harbour is large and commodious; the quay-side extends for about two miles along the river; vessels may anchor anywhere in front of the town ready for hauling alongside the quays. There is a graving dock 305 ft long (on floor), 50 feet wide at entrance, depth of water HWST. 15ft 6in; NT. 13ft. Large vessels lighten off Quigley's before proceeding to Derry. One 60-ton crane, one 5-ton, and one 1-ton.

Charges.—Tonnage rates vary from $\frac{1}{2}$ d to 9d ton.

Pilotage.—**District.** From one mile outside or seaward of the North-east Buoy on the Tuns Bank to Bridge at Londonderry. **Rates per vessel.** Inwards:—7ft and under, 14/, 7ft and under 8ft, 2/, 8ft and under 9ft, 2/2, 9ft and under 10ft, 2/4, 10ft and under 11ft, 2/8, 11ft and under 12ft, 3/, 12ft and under 13ft, 3/4, 13ft and under 14ft, 3/8, 14ft and under 15ft, 4/, 15ft and upwards 4/4 foot, and inches in proportion. Outwards:—7ft and under, 10/6, 7ft and under 8ft, 1/6, 8ft and under 9ft, 1/9, 9ft and under 10ft, 2/, 10ft and under 11ft, 2/3, 11ft and under 12ft, 2/6, 12ft and under 13ft, 2/9, 13ft and under 14ft, 3/, 14ft and under 15ft 3/3, 15ft and upwards 3/6 foot, and inches in proportion. Vessels of 40 tons register and under, when sailing in ballast, free. Vessels of 30 tons burthen per register and under, pay 10/ inward, and 6/ outward; above 30 tons and not exceeding 40 tons, if bound coastwise sailing in ballast 6/ outwards; windbound vessels half pilotage in and half pilotage out, to or from Moville or Quigley's Point. All vessels laden with bark under 120 tons, pay 6d foot extra pilotage; 120 tons and not ex. 150 tons 9d; exceeding 150 tons 1/ foot extra. All ships from, or if bound to, foreign ports having on board half their reg. tonnage of cargo, or with passengers to pay 4d foot pilotage, in addition to the above rates. Vessels

trading to and from this port and harbour, and not proceeding further up the river than Carickarory Pier or Moville, pay one-half pilotage inwards and one-half pilotage outwards; not proceeding further than Quigley's Point, two-thirds pilotage inwards and two-thirds pilotage outwards. Vessels which have cleared the lough and by stress of weather obliged to return pay one-third in and one-third out, provided they do not anchor above Quigley's Point. If above that, or at the ship quay, half pilotage. Pilots detained on board vessels, or in Derry, are entitled to 4/ per day.

Towage.—As per agreement.

Officials.—Sec. to Comms. and General Man., E. A. Hamilton; Harb. Master, John Hamilton; Coll. H.M. Cust., D. Burnett.

Hotels.—"Imperial," "Jury's," "City," "Roddy's," &c.

LONG HOPE, Orkney, port of Kirkwall. D. 3 to 6 fms LW.

Official.—Pier Master, R. Foubister.

LONG ISLAND CHANNEL, Co. Cork, creek of Skibereen, near entrance to Schull. D. of anchorage, 30 to 36ft. No dues.

LOOE, E. and W., Cornwall. Lat. 50° 42' N; long. 4° 27' W; situated on both sides of the river Looe.

Auth. Commissioners, under Act, 1848. Railway station at Liskeard (8 miles). **W.** prev. SE. Used by colliers drawing up to 12ft. **THW.** f. and c. 5h 26m. **D.** at LW. 2ft and at HWST. 13ft. Crane power to 15 tons. A lifeboat station.

Charges.—Harb. dues inward, 1d per ton; outward 2d; discharging cargoes, 4d per ton on gross tonnage.

Pilotage.—Inwards or outwards, 1d per ton reg.

Officials.—Clerk, R. Thomas; Harb. Master, J. Walters.

Hotels.—"The Ship" and "The Looe."

LOSSIEMOUTH, Elgin, Scotland. Lat. 58° 43' N; long. 3° 24' W. **Ry.** Elgin & Lossiemouth. **Auth.** Harbour Co., under Act 4 and 5 William IV., c. 86, and Prov. Order 31 and 32 Vict., c. 47. **Accn.** Area 5 acres 3 roods; quayage 4,000ft. **D.** Dry at LW; at HWST. 12 to 13ft. Used by vessels of up to 280 tons, drawing 12ft at HWST. **THW.** f. and c. oh. 23m. **W.** prev. W.; dangerous NE. to E. Crane power to 3 tons. A lifeboat station.

Charges.—4d per ton reg. inwards or outwards.

Pilotage.—3d per ton reg. inwards or outwards.

Officials.—Clerk, J. Allan; Harb. Master, John Ferguson.

LOUGHOR, Glamorganshire.—See Llanelly. Lat. 51° 42' N; long. 4° 4' W; 6 miles NW. of Swansea. The river is navigable for vessels of light dft up to Loughor. No harb. works. **Ry.** G.W.

LOUGH STRANGFORD, Co. Down, Ireland. A large inlet of the sea between Belfast Lough and Dundrum Bay. It is studded with numerous rocks and islets, and the entrance is dangerous. There is good anchorage for ships in deep water inside.

LOUGH SWILLEY, Co. Donegal, Ireland. The entrance is between Fanad Point and Malin Head.

LOWESTOFT, Suffolk. Lat. 52° 28' N; long. 1° 45' E. **Pop.** 19,696. **Auth.** G.E. Ry., under Acts 9 and 10 Vict., c. 132; 10 and 11 Vict., c. 98; 25 and 26 Vict., c. 223; 40 and 41 Vict., c. 83, and 41 and 42 Vict., c. 154. **P.** N.C. **THW.** f.

and c. 9h 57m; Sp. rise $6\frac{1}{2}$ ft; N. rise $5\frac{1}{2}$ ft; R. of N. $4\frac{1}{2}$ ft. D. on bar 14ft. W. prev. E.; most dangerous SSW. Ry. G.E. Tr.—L. Coal, timber, grain, seed, oilcake, cattle, stone, bark, &c.; E. Bricks, grain, flour, herrings, &c. LV. *Hibernia* 19ft dft. At LWST. ss. *Maris* 16ft dft. Accn. The harb. has an area of 48 acres including inner and outer harb. The length of quay in use for wharfage purposes is 5,130ft, and the length of piers and jetties not used as wharves is 4,000ft. The depth of water varies from 15 to 19ft at HT. There are three fish markets, the dimensions of which are as follows:—Old Market has a covered area of 5,100 super. ft; Trawl Fish Market has a covered area of 29,600 super. ft; Herring and Mackerel Market has a covered area of 48,300 super. ft. There are, in connection with these markets, 54 offices occupied by fish merchants, &c. There is a patent slip and dry dock. Ample warehouse accommodation, hand hoist for coal, and cranes of 6 tons' power.

Charges.—Port charges on vessels with coal, with other cargoes, for trade, on ships, for refuge on ships, sailing, steam, screw and paddle. Ship charges. Daily charges. For use of docks.

Pilotage.—District. For piloting vessels into and out of the harb. of Lowestoft. Rates per foot. 8ft dft. and under 1/6; above 8ft and under 9ft 1/9; 9ft and under 10ft 2/; 10ft and under 11ft, 2/3; 11ft and under 12ft, 2/6; 12ft and under 13ft, 2/9; 13ft and under 14ft, 3/; 14ft and under 15ft, 3/6; 15ft and under 16ft, 4/. All vessels receiving pilotage assistance inside the harb. are charged for such services a fixed sum, settled and determined by the Sub-Commissioners. Vessels piloted into the harb., if between 100 tons and 250 tons, pay 5/, and vessels ex. 250 tons pay 1/ for every 50 tons or any portion of 50 tons for use of boats.

Towage.—Sea rates. From Roadstead into the harb., under 40 tons 5/; 40 tons and under 80, 7/6; 80 and under 100, 10/; 100 to 150, 12/6; 150 to 200, 15/; 200 tons £1; over 200 tons, an additional 2/6 for every 25 tons to or from sea. From harb. to the Roadstead, under 40 tons, 3/6; 40 tons and under 80, 5/; 80 tons and under 100, 7/6; 100 and under 150, 10/; 150 and under 200, 12/6; 200 tons 17/6; over 200 tons an additional 2/6 for every 25 tons to or from sea. For vessels damaged, with losses, disabled, in difficulties, or in bad weather, &c., by agreement with the master of the tug or referred to the harb. master. Vessels requiring to be towed from or to sea, beyond half a mile from the pierheads in moderate weather, as agreed. When the steamtug's tow-ropes are used, a charge in addition to the above rates is made; towage to be paid into the Dues Office when clearing.

Officials.—Gen. Man. G.E. Ry., W. Birt; Harb. Master, H. J. Henderson; Coll. of H.M. Cust., W. G. Lewis.

Hotels.—"Royal," "Suffolk," "Harbour," and "Crown."

LYNDY ISLAND, at the mouth of the Bristol Channel, 11 miles NW. from Hartland Point. In ancient times a noted stronghold of pirates.

LYBSTER, Caithness. Lat. $57^{\circ} 18' N$; long. $3^{\circ} 15' W$.

Auth. Owner, the Duke of Portland, under Prov.

Orders, 1874 and 1879. Accn. Area $2\frac{1}{2}$ acres. D. 12½ft at entrance LWST. and 16ft at HWST.; at HWNT. 12ft. Used by vessels up to 120 tons. THW. f. and c. 11h 28m. W. prev. W. and SW.; most dangerous E. and SE.

Charges.—2d per ton on vessels of 15 to 45 tons reg.; 4d on vessels over 45 tons; 2d per ton on vessels in ballast; light dues 1/.

Pilotage.—3d per ton inwards or outwards. Running out kedge 5/.

Official.—Harb. Master, John Sutherland.

LYDNEY, Gloucestershire. Lat. $51^{\circ} 43' N$; long. $2^{\circ} 33' W$.

Auth. The Severn, Wye & Severn Bridge Ry. Co., under Acts 49 Geo. III., c. 215; 50 Geo. III., c. 215; 51 Geo. III., c. 159; 54 Geo. III., c. 142; 3 Geo. IV., c. 175; 16 and 17 Vict., c. 196; 32 and 33 Vict., c. 137; 33 and 34 Vict., c. 16; 35 and 36 Vict., c. 124 and c. 109; 40 and 41 Vict., c. 120 and c. 168; 42 and 43 Vict., c. 163. **THW** f. and c. about 8h. **Accn.** Tidal basin, 270×75 ft; width of entrance, 33 ft; depth at HWST., 23 ft. Dock, 780×105 ft; width of entrance, 25 ft; depth 14 ft. Upper basin, 908×88 ft; depth 12 ft. Canal, $3,300 \times 72$ ft; depth 12 ft. There is a gridiron. Nine coal staiths, capable together of loading 1,000 tons per hour, but vessels carrying more than 300 tons are usually loaded at Sharpness. Crane power up to 10 tons. **LV.** 450 tons. **W.** prev. and most. dangerous SW.

Charges.—Harb. dues do not exceed 7/6 per vessel. Canal and dock dues, on all goods exported or imported, except coal, iron ore, and stone, 6d per ton. Wharfage, cramage, and use of coal tips, cranes, and wharf for coal and iron ore only 2d per ton, if conveyed over Company's Railways.

Pilotage.—For all vessels coming light from Kingroad to Sharpness or Lydney *bonâ fide* for coal, and for all such vessels laden with coal from Sharpness or Lydney to Kingroad:—

	£	s.	d.		£	s.	d.
Under 40 tons	0	13	0	400 tons and under 500	3	2	6
40 tons and under 60	0	15	0	500	3	15	6
60	0	18	0	600	4	7	6
80	1	0	0	800	5	5	0
100	1	2	0	1000	6	5	0
120	1	4	0	1200	7	5	0
150	1	5	0	1400	8	5	0
180	1	8	0	1600	9	5	0
200	2	0	0	1800 and upwards	10	5	0
300	2	10	0				

LYME REGIS, Dorsetshire. Lat. $50^{\circ} 43' N$; long. $2^{\circ} 56' W$.

Situated in a cavity between two rocky hills, on the River Lyme. Nearest Ry. Axminster, 6 miles distant. **THW** f. and c. 6h 21m. **Auth.** Mayor and Burgesses under Statute Geo. IV., c. 99. **Accn.** Harb. is formed by a stone pier called the Cobb, and is an excellent shelter for small vessels. **D.** Dry at LW.; at HWST. 11ft 6 in. **W.** prev. SW. to WSW. A lifeboat station.

Pilotage.—According to Trinity Scale.

Official.—Harb. Master, Robert Hodder.

Hotels.—"Royal Lion" and "The Cups."

LYMINGTON, Hampshire. Lat. $51^{\circ} 46' N$; long. $1^{\circ} 32' 56''$

W. Ry. L. & SW. **Auth.** Town Council. **W.** prev. SW. **D.** at LW. 6ft to 9ft. **THW** f. and c. 10h 25m. There is a small slipway. A lifeboat station.

Official.—Town Clerk, J. Davis Rawlins.

LYNMOUTH, Devonshire. Lat. $51^{\circ} 12' N$; long. $3^{\circ} 50' W$.

A small port between Combe Martin and Porlock. **D.** 15ft HWST. **THW** f. and c. 6h 2m. A lifeboat station.

LYNN, Norfolk. On the outlet of the Ouse into the Wash.

Lat. $52^{\circ} 45' N$; long. $0^{\circ} 15' E$. Pop. 18,540.

Auth. For the Harb. the Mayor, Aldermen and Burgesses; for the Docks, the King's Lynn Dock Company, under King's Lynn Dock Act, 1865, and Act, 1877. **P. C.** **THW.** f. and c. 6h; Sp. rise 23ft; N. rise 11ft. **D.** on bar or sill of dock ST. 25ft; NT. 18ft. **W.** prev. from SW. to NW.; most dangerous from NW. to NNE. **Rys.** G.E. and Bourn & Lynn Jn. (G.N. & M.) **Tr.**—I. Timber, deals, sulphur, ore, coal, oilcake, grain, linseed, cotton seed, &c.; E. Corn, flour, sand, coprolites, coal, oil, &c. **LV.** (sailing) 1,297, (steamer) 2,400 tons, both at HT. Vessels cannot enter at LW. **Accn.** The harb. is about 1,000yds long, and 150yds wide at LW. area about 30 acres, with an av. depth at LW. of about 10ft, and provides accommodation for at least 42 ships, besides the quay spaces; and in cases of necessity the accommodation in the harb. could be greatly increased. Dredging has greatly improved the harb., there being now more uniformity of depth. There are two docks, viz., the Alexandra Dock, $6\frac{1}{2}$ acres area, entered by a lock 200ft long by 50ft wide, with depth on sill of 25ft ST. and 18ft NT.; and the Bentinck Dock, with an area of 10 acres. There is also a patent slip 300ft long and 50ft wide, which can take vessels of 600 tons burthen. The quayage length is about 5,240ft; ample warehouse accommodation, hydraulic appliances, &c.

Charges.—Harb. and dock dues, town dues, anchorage, ballastage, bulkbreak, lastage, light dues $\frac{1}{2}$ d reg. ton. Mooring dues $\frac{1}{2}$ d. ton; Norfolk estuary dues $\frac{1}{2}$ d. ton; Duchy of Cornwall, lastage on all grain shipped $\frac{1}{2}$ d quarter.

Pilotage.—**District.** Into or out of the port of King's Lynn, or between St. Edmund's Ness (or Gore End) and Staple Ware. In practice, the pilots conduct vessels between Lynn Harb. outwards and the bell buoy in Lynn Lower Roads, northward. **Rates.** Not ex. 10ft, $\frac{1}{6}$, ex. 10ft and not ex. 12ft, $\frac{1}{9}$, ex. 12ft and not ex. $14\frac{1}{2}$ ft, $\frac{2}{3}$, ex. $14\frac{1}{2}$ ft, $\frac{2}{6}$ foot dft. when loaded. No allowance made for any number of inches not amounting to half a foot. Additional rates for docking, undocking, mooring, and unmooring vessels or other extraordinary service, viz.:—Sailing vessels oversea.—Not ex. 100 tons reg. $\frac{4}{5}$, ex. 100 and not ex. 250 tons $\frac{5}{6}$, ex. 250 and not ex. 450 tons $\frac{6}{7}$, ex. 450 tons $\frac{7}{6}$, for all steamers oversea $\frac{10}{7}$. Vessels coastwise.—For every service rendered beyond the ordinary pilot service $\frac{1}{5}$, for mooring a vessel $\frac{2}{6}$, for every day after the first day a pilot is detained in the Channel on board any inward-bound vessel, $\frac{10}{7}$, for attending any outward-bound vessel which subsequently proceeds to sea without a pilot $\frac{2}{6}$.

Towage.—By agreement.

Officials.—Gen. Man. King's Lynn Dock and Ry. Co., A. G. Russell; Town Clerk, Lynn, F. G. Archer; Coll. of H.M. Cust., A. Scott.

LYTHAM, Lancashire, near Preston. **D.** HWST. 17ft. 6in., HWNT. 12ft.

Official.—Capt. Bannister, Harb. Master.

MACDUFF, Banffshire. Lat. $57^{\circ} 40' N$; long. $2^{\circ} 30' W$. Moray Firth. **Auth.** Owner, the Earl of Fife, under Act 10 and 11 Vict., c. 127, and the Macduff Harb. Order, 1875. **Accn.** Outer basin, 430ft \times 150ft; inner basin, 700ft \times 200ft; entrance, 85ft wide; quayage, 1,620ft. **D.** HWST. 14ft 6in to 16ft, and HWNT. 11ft. There is a portable steam crane of

3 tons' power, and hand cranes lifting 1 ton. **W.** On shore from **W.** to **E.**; most dangerous **NE.**

MAIDSTONE, Kent. River Medway is navigable to this place for vessels of 40 to 50 tons. **Ry.** **SE.**

MALAG HARBOUR, Argyleshire, W. coast of Scotland. **D.** There is 3 fms. at **LW.**, and a good pier anchorage in 5 fms.

MALAHIDE, Co. Dublin, Ireland. Lat. $53^{\circ} 28' N$; long. $6^{\circ} 8' W$. 6 miles from Dublin. **Auth.** Owner, Lord Talbot de Malahide. Used by small colliers.

MALDON, Essex. Lat. $51^{\circ} 44' N$; long. $0^{\circ} 40' E$. Situated at the confluence of the Blackwater and the Chelmer. There is no regular harb. **D.** Dry at **LWST.**, vessels of 12ft dft. at **HWST.**

MAN.—See Isle of Man.

MARAZION, Cornwall. Lat. $50^{\circ} 7' N$; long. $5^{\circ} 17' W$. 3 miles **W.** from Penzance. Small vessels bringing timber, coals, and iron for use in the neighbouring mines.

MARGATE, Kent. Lat. $51^{\circ} 23' N$; long. $1^{\circ} 23' E$. **Auth.** Trustees, under Acts, 1812, 52 Geo. III., c. 186; 1826, 7 Geo. IV., c. 31; 1871, 34 and 35 Vict., c. 120; 1878, 41 and 42, Vict., c. 114. **THW.** f. and c. 11h 45m. **Accn.** Harb. 6 acres in area, dries at **LW.** Length of quayage 900ft. **D.** 9ft **HWNT.**, and 12ft **HWST.** An iron pier 1,460ft long. **W.** Most dangerous **N.**, **NE.**, and **NW.** **LV.** One drawing 12ft. A lifeboat station.

MARYPORT, Cumberland. On the Ellen. Lat. $54^{\circ} 43' N$; long. $3^{\circ} 30' W$. **Pop.** 8,126. **Auth.** Harbour Trustees, under Acts, 1866 and 1868. **P.** **NC.** **THW.** f. and c. 11h 26m; **Sp.** rise 25ft; **N.** rise 19ft; **D.** on bar, **LWST.** nil; **N.** rise 2ft to 3ft. **W.** prev. and most dangerous **W.** to **SW.** **Rys.** **L.** & **N.W.** and **M.** & **C.** **Tr.**—**I.** Timber, grain, iron ore, &c.; **E.** Coal, steel rails, pig iron, &c. **LV.** 3,900 tons. No vessels enter at **LW.** **Accn.** Extensive quayage space round the Old and North Harb. and the docks. Particulars of Docks:—

	Length.	Width	Water Area.	Area of Basin.	Width of En.	D. of Water on Sill.		Quayage
	ft.	ft.	acres	acres.	ft.	ft.	ft.	ft.
Elizabeth Dock	600	240	$3\frac{1}{2}$	$2\frac{1}{2}$	50	20	14	1,600
Senhouse Dock	850	300	6	..	50	25	19	2,200
" Basin	..	..	8	..	..	25	19	800

Slips, &c.	Length.	Width.	Height of Tides.		Owned by	Remarks.
	ft.	ft.	ft.	ft.		
Patent Slip ...	In course of		construction.		Ritson & Co.	{ For large vessels. Only small vessels can be taken at NT.
Gridiron, on the River Ellen	200	25	14	8		

Steam cranes to 4 tons' power and every facility for rapid loading and discharging. Steam and other lighterage available. **Rys.** run alongside quays.

Charges.—Tonnage rates, inwards: home trade 5d ton, foreign 6d. Outwards: home 6d, foreign 9d. Harb. boat charges (chargeable on every vessel), vary from 1/6 to 21/, according to size.

Pilotage.—According to agreement.

Towage.—Coasting—Inwards: from sea, any distance under 1 mile, if ex. 30 tons reg. 1½d ton; if not ex. 30 tons reg. 3/9. For waiting upon vessel ex. 30 tons reg. whilst anchor is being raised, and afterwards towing for any distance not ex. 1 mile 2d reg. ton. Coasting—Outwards: from harb. to sea, if ex. 30 tons, 1½d reg. ton; if not exceeding 30 tons reg. 3/9. Foreign—Inwards: from sea into harb. not ex. 2 miles 2d reg. ton; Outwards: from harb. to sea to a safe offing 2d reg. ton when laden, and 1½d reg. ton in ballast. Company's towing cable: for vessels under 120 reg. tons using cable 10/; all above that tonnage 1d reg. ton.

Officials.—Clerk to the Trust., F. Kelly; Harb. Master, Capt. B. Nelson; Deputy Harb. Masters, W. Davidson and A. Brennan.

Hotels.—"Golden Lion," "Senhouse Arms," and "Star."

MEDWAY RIVER, Falling into the Thames at Sheerness; navigable to Penshurst. From Rochester Bridge to Sheerness (17 miles) it forms one of the best and safest harbours in the world. At Chatham is situated the Naval Dockyard.

METHIL NEW DOCK, Fifeshire, near mouth of Firth of Forth. P. NC. Auth. R. Erskine Wemyss. Ry. N.B. Accn. Acreage of the dock about 4½ acres; THW. f. and c. 2h 30m. D. at OST. 23ft. Width of entrance, 50ft; quayage, 1,850ft. Three hydraulic coal hoists—two of them with runaway high-level sidings for empty waggons; also, hydraulic cranes of 30 cwt power. Large shed with hydraulic cranes for loading waggons under cover. Dock is lighted by electricity.

Charges.—Rates same as at Burntisland.

Official.—Harb. Master, Capt. Barnetson.

Hotel.—"Wemyss Arms."

MEVAGISSEY, Cornwall. Lat. 50° 16' N; long. 4° 46' W.

Auth. Trustees, under Act 15 Geo. III., c. 62, and Prov. Order 28 and 29 Vict., c. 76. Accn. Area 2½ acres. D. Dry at LW., 18ft HWST., and 11ft HWNT. LV. 200 tons. W. prev. W., most dangerous SE. THW. f. and c. 5h 9m. A lifeboat station.

Officials.—Man. Trustee, J. S. Iago; Harb. Master, W. Robins.

MIDDLESBORO', Yorkshire. On the Tees, about 8 miles from its mouth and 4½ miles below Stockton (see also Stockton-on-Tees). Lat. 54° 34' N; long. 1° 6' W. Pop. 70,000. Auth. River Tees, Tees Conservancy Commissioners, under Tees Conservancy Acts, 1852 and 1875; Docks, N.E. Railway Co. P. NC. THW. 3h 55m; Sp. rise 13ft; N. rise 10½ft. D. on bar 17½ft at LWST.; the lowest depth on the bar at LWST. is 14ft. W. prev. and most dangerous are from N. and ENE. Ry. NE. Tr.—I. Timber, grain, flour, slates, iron ore, &c.; E. Manufactured iron and steel machinery, chemicals, general goods, bricks, clay, coke, coal, &c. LV. 2,729 tons net reg., 23ft 11in dft, 4,351 tons cargo. The entrance to the river Tees is between the N. and S. Gare breakwater, and vessels of 13ft to 15ft dft. can enter at LWST.

The Middlesboro' Dock is the property of the N.E. Railway Co. Area of $15\frac{1}{2}$ acres, depth on sill OST. 28ft. Length of quay wall, 3,145ft. Twenty-six cranes of from 35 cwt to 15 tons, and sheer legs capable of lifting 60 tons.

Graving Docks, &c.:—

Name.	Length.	Breadth	Depth on Sill OHW.	H. of T.		Owner.	Remarks.
				Sp.	N.		
Graving Dock ..	500	50	16 6	14	10½	Tees Comrs.	..
Patent Slip	310	40	..	14	11	Ditto	For private use only.
Hydraulic Slip .	400	44	..	16	11	Raylton, Dixon & Co.	..
Patent Slip	500	40	..	12 to 13	9 to 10	R. Craggs & Sons.	Length of cradle, 230ft.
East Slip	400	40	..	..	..	..	..

Charges.—Dock dues on ships, dock dues, rates or tolls on goods and cattle. Dock police, 6d to 2s according to size. Charges for assistance in mooring ships. Dock charges on goods. Trimming charges, &c.

Pilotage.—Rates per foot. Tees rates from April 1 to October 1, 1/9; from October 1 to April 1, 2/. Tees river pilotage all the year round, 1/9. Tees rates for docking and transporting not ex. 200 tons reg., 5/; not ex. 400 tons, 7/6; not ex. 600 tons, 10/; not ex. 800 tons, 15/; not ex. 1,000 tons, 17/6; not ex. 1,500 tons, £1; not ex. 2,000 tons, £1 5s; ex. 2,000 tons, £1 10s. Ships over 400 tons reg. shall pay one halfpenny per ton on the excess of tonnage above 400 tons, in addition to the above pilotage dues. Vessels having lee-boards pay 5/ in addition to the above rates. North Sea and East Coast. Pilotage as agreed.

Towage.—Light, to or from sea 3½d; loaded, to or from sea 4d ton.

Officials.—Gen. Man. N.E. Ry., York, H. Tennant; Dock Supt., W. Bulmer; Dock Master, W. R. Curson; Harb. Master, J. Storm; Wharf Master, W. Wilson; Staith Master, G. Greener; Collector of H.M. Cust., C. Edwards; Sec. Tees Cons. Commrs., J. H. Amos.

Hotel.—"Queen's."

MILFORD HAVEN (Port of), Pembrokeshire. Lat. $51^{\circ}43'N$; long. $5^{\circ}3'W$. Ry. G.W. THW. f. and c. 6h 4m. An inlet of the sea, on the SW. coast of Pembrokeshire, entering from the S., and then striking suddenly towards the E. From St. Ann's Head to Pembroke Ferry, where it becomes the Cleddau estuary, it is 12 miles long; varies in breadth from $\frac{3}{4}$ to $1\frac{1}{2}$ mile, though the ship channel is much narrower, owing to projecting mud flats and shelves. It has in the navigable parts a depth of from 5 to 14 fms., and branches off into numerous shallow bays and creeks. It is easy of entrance, affords good shelter, and forms one of the finest natural harbours in the kingdom. On St. Ann's Head, at W. side of entrance, are two fixed lights of the first order; and on Great Castle Head on N. side of haven, 4 miles W. of Milford, are two fixed leading lights for the guidance of vessels entering. There are also other leading lights further up the haven.

MILFORD HAVEN (Town of). Parliamentary borough and seaport, Hubberston and Steynton parishes, Pembrokeshire, on N. shore of the Haven, $8\frac{1}{2}$ miles S.W. of Haverfordwest, and 275 miles W. of London by rail, and 260 via Severn Tunnel. 369 acres. Pop. 3,812; P.O., T.O., called Milford Haven. Milford dates from 1790, when it became the seat of a royal dockyard for the construction of ships of war. D. HWST. 22ft, HWNT. 16ft. The New Docks at Milford recently opened have an entrance lock 70ft wide and 550ft long; the depth on sill being 34ft HWST. Water area of docks is about 20 acres. Dry dock 600ft \times 94ft width at coping, and 70ft at entrance. Auth. The Milford Docks Co. These docks are capable of accommodating the largest vessels afloat, and are provided with several cranes (steam and hand), the most powerful being one of 10 tons. The docks' sidings are in direct communication with the G.W.R. And there is a passenger station, and large iron warehouses within the docks.

Charges.—Dock dues on trawlers, 1d per ton, with a minimum of 2/6 on sailing, and 7/6 on steam vessels.

Officials.—Gen. Man., G. Birt, jun.; Sec., F. M. Brocklebank; Dock Master, J. W. James; Supt. of Cust., — Bisnall.

MILFORD, NEW (or Neyland). Seaport town, Llanstadwell parish, Pembrokeshire, on creek of Neyland Pill, opposite Pembroke Dock, 4 miles E. of Milford, $8\frac{1}{2}$ miles S. of Haverfordwest, and 273 miles W. of London by rail. P.O., T.O., called Neyland. New Milford is the terminus of the Great Western Railway, and here goods are put on board the Irish steamers. The railway runs down to the water's edge, and the haven ($\frac{1}{2}$ mile wide) is crossed by steam ferry. The G.W.R. Co. have here extensive wharves and jetties, principally employed during the spring and summer season by steamers bringing over the Irish fish, and also by the local steam trawlers. Barn Lake Pill has been dredged out by the Company at great expense, and now forms a well-sheltered and secure harb. with 13ft at LWST. The wharves and jetties are provided with hydraulic cranes; and two hand cranes, respectively of 10 and 4 tons' capacity, are provided for heavy lifts. New Milford can boast of the finest gridiron in the United Kingdom. The pontoons for the Company's steamers on the Irish Service are 545ft in length, and the railway waggons are lowered on to them by large hydraulic hoists. There are also two coal drops.

Official.—Marine Supt., Capt. Squire T. S. Lecky.

Pilotage.—**District.** From Caldy Island, along the Coast to St. David's Head, and thence to Cardigan Island, and *vice versa*. **Rates** per foot. From a line drawn from St. Anne's Point to Sheep's Island, to any part of the harb. below a line drawn from Newton Noyes Point to Martin's Haven, under 14ft, 2/6; 14ft. and upwards, 3/6; from a line drawn from St. Anne's Point to Sheep's Island, or from Hubberstone Road, to any place above a line drawn from Newton Noyes Point, to Martin's Haven, in addition, under 14ft, 2/; 14ft and upwards, 2/6. Vessels inward-bound not boarded until they have passed a line drawn from Rat Island to Watwick Point pay one-fourth less than these rates, and if not boarded until they have passed a line drawn from Thorn Island to Great Castle Head one-half only of these rates; and if not boarded until they have passed the Stack Rock to a line to Newton Noyes Point to Martin's Haven, they are not chargeable with any pilotage, unless the masters require pilotage assistance. Additional

rate for ships boarded without the entrance of the harb.: From a line drawn from Luney Point to Skokam Island 2/; if to the southward of St. Gowan's Head to Skokam Island 1/ foot; or from Caldy Island, eastward, or from the westward of the Grassholm, or 3 leagues without Luney Point £3 3s; six leagues without Luney Point, £4 4s; ten leagues, £6 6s. For services and assistance in the harb., not exceeding the following rates, at the discretion of the Sub-Commissioners: For a boat carrying an anchor above 6 cwt. with a corresponding hawser, if in Hubberstone Road, £2 2s.; each man in the boat each tide 5/; if below Hubberstone Road, a line drawn from the E. Point of Gilliswick, to the E. Point of Angle Bay, and above the Stack Rock, £2 12s 6d; each man in the boat each tide, 5/; if in Dale Road and the anchor is brought from Milford, £4 4s; or if carried off from Dale, £2 12s 6d; each man in the boat each tide 5/. For a boat carrying off an anchor 3 cwt., and not ex. 6 cwt., with a corresponding hawser, the boat and men to have three-fourths of the above specified sums. For a boat with an anchor 2 cwt., and not ex. 3 cwt., with a corresponding hawser, the boat and men to have one-half of the above sums. For unmooring a ship drawing 14ft of water, and upwards, and bringing her alongside the quay, or into Hubberstone Pill, from the situation first or second before-mentioned, for the pilot 21/; if with a boat, an additional sum of 10/6; each person employed, 5/. From the Third Station specified, for the pilot, 31/6; if with a boat, an additional sum of 10/6; each person employed 5/. Ships under 14ft dft. of water, to or from the situations before-mentioned, three-fourths of the sums for the pilot; the boats and men as above specified. For new mooring a ship drawing 14ft in either of the above situations, for the pilot, 10/6; if with a boat, an additional sum not ex. 10/6; each person employed not ex. 5/.

Towage.—As per agreement.

MILLBAY.—See Plymouth.

MILLOM.—Creek of Whitehaven, on river Duddoon. D. HWST. 20ft, HWNT. 12ft.

Official.—Harb. Master, Capt. Morgan.

MILTON, Kent. Creek of port of Faversham. D. at Milton Quay 7ft HWST., and 4ft HWNT. D. at Crown Quay 9ft HWST., and 6ft HWNT.

MINEHEAD, Somerset. Lat. 51° 12' 45" N; long. 3° 28' 20" W.

Ry. G.W. Auth. Owner, G. F. Luttrell, under an Act of Geo. IV. Accn. Area 4 acres. D. Dry at L.W.; at HWST. 26ft. Used by vessels of up to 300 tons. W. prev. W. THW. f. and c. 6h 24m. Crane power to 5 tons.

Charges.—Keelages ½d per ton reg.; coal and culm 2d per ton; timber 1/ per load.

Pilotage.—As per agreement.

Official.—Harb. Master, Henry Pulsford.

Hotels.—"Feathers" and "Beach."

MISTLEY, Essex. Near Manningtree, on Mistley water. See Harwich.

MONIFETH, Forfarshire, near Dundee. D. 9 to 12ft HWST.

Charges.—Half of Dundee rates, collected at Broughty Ferry.

Official.—Harb. Master, R. H. Bell.

MONTROSE, Forfar, at the mouth of the river Esk. Lat 56° 42' N; long. 2° 16' 9" W. Pop. 15,000. Auth. Harb.

Trustees. P. NC. THW. f. and c. 1h 55m; Sp. rise 14ft; N. 11ft; R. of N. 8ft. D. on bar at L.W. 15 to 18ft. Ry. Cal. Tr.—1.

Flax, hemp, and timber; E. Canvas, coarse linens, corn, cattle, smoked haddocks, pork, potatoes, &c. **LV.** accessible to the largest ships at **HW.** **Accn.** The harb. is formed by the outlet of the S. Esk, which falls into the sea between Scurdy Ness on the S. and the Annat Bank, which forms a natural breakwater on the N., leaving a channel 170yds wide, with a depth of 22ft **HWST.**, and 17½ft **NT.** up to abreast the town quays. There is a wet dock of 3½ acres, entrance 55ft. wide, depth on sill at **ST.** 19½ft, **NT.** 15ft. There is also a deep water berth 350ft long, at which there is 20ft **LWST.** There is likewise a berth at the buoys in the river, with 20ft to 22ft **LWS.** The dock and town quays afford 1,200yds of wharfage. There is a patent slip 300ft long, 32ft. wide with 21ft at **ST.**, and 14ft at **NT.** One crane of 6 tons' power. The river is being deepened.

Charges.—Harb. and dock rates and dues (tonnage rates) vary from 1½d to 1/6 reg. ton; plank money 1/ to 6/6 each vessel, according to size. Ballast 9d. per ton put into hold.

Pilotage.—Rates:—

Reg. Ton.	Vessels from Foreign Ports, Inwards and Outwards.	Vessels Coastwise.	
		Inwards.	Outwards.
	£ s. d.	£ s. d.	£ s. d.
All under 50 tons	0 10 10	0 6 0	0 5 0
50 and under 75 tons	0 16 0	0 10 0	0 6 0
75 " 100 "	1 0 0	0 12 0	0 8 0
100 " 150 "	1 10 0	1 0 0	0 10 0
150 " 200 "	1 15 0	1 0 0	0 15 0
200 " 300 "	2 5 0	1 2 6	0 17 6
300 " 400 "	2 12 6	1 5 0	1 0 0
400 " 550 "	3 0 0	2 10 0	1 0 0
550 " 1,000 "	4 0 0	1 13 6	1 6 6
1,000 " 1,250 "	4 10 0	3 0 0	1 10 0
1,250 " 1,500 "	5 0 0	3 6 6	1 13 6
1,500 " 1,750 "	5 10 0	3 13 6	1 16 6
1,750 " 2,000 "	6 0 0	4 0 0	2 0 0
2,000 and upwards	6 10 0	4 6 6	2 3 6

Pilot master's fee 5% on pilotage. Tide's work of boat and crew as per agreement. Extra pilotage fee of one-half the inward pilotage dues to be paid by vessels moored fore and aft to both of the Stell buoys, and transported to or from the buoys from or to the dock or quays.

Towage.—In ballast 2½d; loaded 2½d ton.

Officials.—Harb. and Dock Master, Capt. James Hughes; Coll. of Shore Dues, L. S. Smith; Coll. of HM. Cust., — Wallace.

Hotels.—"The Queen's" and "The Star."

MORECAMBE, Lancashire. **Auth.** M.R. Co., by Statute 9 and 10 Vict. **Accn.** Crane power to 5 tons.

D. on bar 2½ft **LW.**, and 28ft at **HWST.** **LV.** 560 tons at **HW.** **W.** prev. **W.**

Charges.—Moderate.

Officials.—Gen. Man., John Noble, Derby; Harb. Master, I. M. Sibbald.

Hotel.—"The Midland."

MORRISON'S HAVEN, Edinburghshire. Firth of Forth. Lat. 55° 59' N; long. 3° 10' W.

Ry. NB. **THW.** f. and c. 2h 17m. **Accn.** A wooden pier 415ft long. Crane of 2 tons' power. **D.** Dry at **LW**; at **HWST.**

Pill or Mines Royal Copper Works to sea or Outward Buoy 3d; Neath to sea or Outward Buoy 3½d; Giant's Grave to Mumbles Roadstead 3½d; Abbey to Mumbles Roadstead 4½d; Neath to Mumbles Roadstead 5d. Vessels that may require to be towed shorter distances, if not having been offered the steamer to tow them the whole distance from where they were laden or going to load, pay as under:—Layer to Giant's Grave and *vice versa* 1d; Abbey Coal or Crown Copper Works 1½d; Abbey Pill or Mines Royal Copper Works 1½d; Neath 1½d reg. ton. Giant's Grave to Abbey Coal or Crown Copper Works 1d; to Abbey Pill or Mines Royal Copper Works 1½d; to Neath 1½d; Abbey Coal or Crown Copper Works to the Pill 1d; to Neath 1½d; light vessels towed from Swansea to Giant's Grave 3d; ditto to Abbey Coal or Crown Copper Works when done in one tide 3½d; ditto to Neath ditto 4½d; ditto from Giant's Grave to Swansea ditto 4d; ditto from Neath Abbey to Swansea ditto 4½d; ditto from Neath to Swansea ditto 5d; loaded vessels towed to or from Swansea (in addition to the rate of towage from the various stations to the outward buoy) 3d reg. ton. All vessels not exceeding 30 tons reg. pay 3/6 for towage in or out, to or from Giant's Grave. Vessels 150 tons reg. and upwards ½d ton above these rates for all inward towage. Rates to hobbler.—Hobbler over the bar, to or from the Layer or Giant's Grave, or the southern end of the Abbey Estate 2/6 per vessel; hobbler over the bar, to or from Foxe's Coal Bank, or the Copper Works, or the Abbey Pill 3/; hobbler over the bar to or from Melincrythan wharf or Neath bridge 4/; hobbler employed in removing or assisting vessels within the harb. 1/6 per tide. For use of tow-ropes.—Vessels in the limits of the port 6/-; vessels from Swansea or Mumbles 12/; vessels requiring two tugs, half the above rates will be charged for the second boat. Vessels that have been offered the use of the steam tug to tow the whole distance from where they were laden or going to load, and having refused to take her, should they afterwards require her on that tide or tow, however short the distance, will be charged the same amount as if towed the whole distance from where the steamer was offered. Should there, on the other hand, be a greater number of vessels ready for sea, or coming in, than the steamers can tow, at any one time, on the same tide, then, and in that case only, those vessels which may follow under canvas, &c., and may afterwards require the assistance of the steamers, will only be charged according to the rates for distance.

Officials.—Neath Harb. Master and Coll. of Harb. Dues, Lieut. Gwyn Lewis; Briton Ferry Dock Master, E. Hodges.

NEWBIGGIN, Northumberland. Lat. 55° 11' N; long. 11° 31' W. **Auth.** Carron Co., incorp. by Royal Charter. Harb. dries at LW. **W.** prev. SW. Used by Carron Co.'s own vessels shipping limestone.

Official.—Man., D. Gowan.

NEWBURGH, Aberdeenshire. On the Ythan. A small harb. belonging to J. H. Udney, Esq., used for landing lime, manure, grain, and coals. **D.** at bar at LW, 1 to 1½ft. **W.** prev. SE. A stone pier 390ft. A lifeboat station.

Official.—T. Wilson.

NEWBURGH, Fifeshire. On the Tay. **Ry.** N.B. **T.** Sp. rise 14ft to 16ft, N. rise 11ft to 13ft. Steamers run daily to Dundee and Perth.

NEWCASTLE, Co. Down, Ireland. Dundrum Bay. **Auth.** Grand Jury of Co. Down, under Act 16 and 17 Vict., c. 136, s. 7. **Accn.** Area $1\frac{1}{2}$ acres, dry at LW, rapidly filling up. Used formerly by vessels up to 200 tons. **W.** prev. S, SE, and E.

Official.—County Surveyor.

NEWCASTLE-ON-TYNE, Northumberland. Lat. $55^{\circ} 1' N$; long $1^{\circ} 25' W$. **Pop.** 145,360. **Auth.** Tyne Improvement Commissioners, by Acts 1850, 1857, and 1875; the N.E. Ry. own the Tyne Dock. **P. NC.** **Tides:**—

	HW. f. c.	Sp. rise.	N. rise.	R. of N.
Tyne R. entrance	3h 20m	$14\frac{3}{4}$ ft	$11\frac{1}{2}$ ft	8ft
N. Shields	3h 23m	$14\frac{1}{4}$ ft	$11\frac{1}{2}$ ft	$8\frac{1}{2}$ ft
Newcastle	3h 25m	15ft	...	9ft
Elswick .....	...	$15\frac{1}{2}$ ft	...	$9\frac{1}{2}$ ft

D. on middle of bar at the entrance to the harb. is over 27ft at LWST. **W.** The Commissioners do not keep any record of the direction of the wind; most dangerous are from NNE. to SSE. **Rys.** N.E. and N.B. **Tr.**—I. Ales, wines and spirits, box and bale goods, canvas, jute, hemp, clay, colonial produce and wheat, grain, provisions, glass, manufactured iron, lead, livestock, ore, stones, salt, slates, oils, tallow, skins, esparto grass, timber, &c.; E. Coals, chemicals, manures, cement, copper, manufactured iron, lead, paints, oils, tar, fire-bricks, fire-clay, &c. **LV. Tyne Dock**, "Hooper," 3,901 tons. No record is kept by the Commissioners of the dft of vessels entering, or of the time of tide when they entered. **LV. Northumberland Dock**, "Golconda," 3,961 tons. There are the following docks:—The *Albert Edward Dock* for I. and E. traffic. Water area 24 acres, tidal basin $2\frac{1}{2}$ acres, tidal entrance 80ft wide, lock 350ft long and 60ft wide. Depth of water on sill at HWST. 30ft, at HWNT. 26ft, outer lock sill 6ft deeper than sill of entrance, being 21ft below LWST., so that vessels of 20ft dft. can be locked in at LW. Length of quays inside dock 2,600ft, of river wall or quay 900ft. For the accommodation of grain and general merchandise of all kinds, there is a warehouse 200ft long by 100ft broad, containing six floors, and spacious cellarage, whilst on the quays there are efficient steam and hydraulic cranes for unloading and loading vessels direct to and from truck or warehouse with the greatest expedition. Inside the dock there is a large coal shipping staith, where vessels can bunker or load outward with coal, after discharging their inward cargoes. Opposite Northumberland Dock there are timber ponds covering an area of 89 acres, with direct access from the river. The *Northumberland Dock*, situated 1,200 yards above the Albert Edward Dock entrance, for general I. and E. traffic, is well provided with steam cranes. Water area, 55 acres; tidal basin, $2\frac{1}{2}$ acres; tidal entrance, 70ft wide; lock, 250ft long and 52ft wide; depth of water on sills at HWST. 24ft, HWNT. 20ft. Inside the dock there are jetties with a wharf behind 450ft long by 100ft broad. Outside the dock is a riverside quay 1,100ft long and 144ft broad, having a depth of water alongside of 18ft at LWOST. At the Commissioners' River Staiths (between Albert Edward and Northumberland Docks) the largest class of steamers and sailing vessels requiring to load coal or coke without entering the docks can take in full cargo and proceed to sea at all times of tide.

These docks and staiths are in direct communication by rail with the coalfields of Northumberland and Durham, and with all parts of the Kingdom. The Docks Estate of the Commissioners includes 273 acres of storage ground for timber, deals, ores, and other undamageable goods. *Tyne Dock* (belonging to the N.E. Ry. Co.) is on the S. side of the river, opposite the Northumberland Dock. Water area, 50 acres. Three shipping jetties with 30 spouts for coal shipment; grain and other warehouses; hydraulic cranes, &c. Dry Docks, &c. (See also Jarrow):—

Name.	Owner.	Length	Width of Entrance.	Depth on sill, OHW.	H. of T.	
					ST.	NT.
Hebburn Dry Dk.	R. & W. Hawthorn, Leslie & Co., Ltd.	450	68	21	21	18
Palmer's	Palmer's S. B. & J. C., Ltd.	440	70	17	18	14
Patent Slip	Do.	600	21	..	18	14
High Slip	J. and D. Morris	238	34	..	11	8
Low	Do.	350	34	..	11	8
Tyne Main Patent Slip	Tyne Main Slip Co.	350	18½	..	9 to 12	6 to 9
St. Anthony's Slip	W. Brown & Son	300	40	..	9½	7
St. Lawrence	Do.	200	35	..	9½	7
Friar's Goose	Tyne Wherry Co., Ltd.	180	17	..	7	4
St. Peter's Quay Slip	Tyne Gen. Ferry Co., Ltd.	300	27	..	15½	10½
Howden	Tyne Commissioners	500	..	..	15	12
Wallsend Patent Slip	Wallsend Slipway Co.	1,000	50	..	26	23
Wallsend	Do.	1,000	50	..	26	23
Pontoon	Do.	350	65	24	..	..
Gridiron	Do.	261	64	..	24	..
Tyne Pontoon & Dry Dk	Tyne Pontoon & D Dk Co.	250	30	..	..	..
Willington Slip, No. 1	W. Cleland & Co., Ltd.	600	80	24½	..	..
Willington Slip, No. 2	Do.	580	46	..	26	23
Middle	Middle Dock Co.	620	57	..	26	23
Do.	Do.	322	50	17½	12½	..
Do.	Do.	279	45	18	13	..
Do.	T. & W. Smith	300	60	17½	12	..
Do.	H. S. Edwards & Son	426	46	21	15	..
Do.	Do.	305	42	15½	9½	..
Do.	Do.	325	48	18	12	..
Mercantile Dry Dock, Jarrow	Do.	350	60	11	21	..

* For steam tugs, lighters, or hoppers.

† Accommodates vessels 320ft long, 3,000 tons.

‡ Length of cradle, 210ft. § Length of cradle, 310ft.

Charges (Newcastle, North Shields, and South Shields).—River dues on shipping. Piers rate, ½d to 2d ton. Mooring rate, ½d ton. River tonnage rate, 1½d and 3d ton. Dues on vessels not breaking bulk, 2½d ton. Newcastle-on-Tyne Bridge dues, 2d ton. Export dues on coal, 1½d ton. River dues on goods shipped or unshipped. *Northumberland and Albert Edward Docks*: Dock dues, inwards, 2d to 1/ per ton; outwards, 2d to 6d. per ton. Rates on goods. Wharfage on goods, Tyne harb. lights, buoys, and beacons dues, lights from 11d to 1/5, according to size, buoys and beacons 4d to 1/3, according to size. *Tyne Dock*: Dock dues, inwards, 2d to 1/ ton; outwards, 2d to 6d ton. Wharfage on goods. Dues on goods and cattle. Charges for assistance in mooring ships, and dock police. Special rates for grain and flour, foreign iron, spelter, &c., payable to Corporation. Cranage charges, package dues. Payable at Customs: Fairway buoys, each vessel proceeding N. 1/ (to Trinity House). Lifeboat, 1/ to 3/, according to size.

Pilotage.—District. The whole of the river Tyne, and extending seaward over a radius of seven miles.

Rates (per foot):—

	April 1 to Sept. 30.	Oct. 1 to March 31
	s. d.	s. d.
Sea to Dock or from Dock to sea	1 3	1 6
Sea to Bill Point or Bill Point to sea	2 3	2 6
Sea to east side of Newcastle Bridge or the reverse	2 9	3 0
Sea to Suspension Bridge at Scotswood or the reverse	3 3	3 6
Dock to Bill Point or Bill Point to Dock	1 0	1 0
Dock to east side of Newcastle Bridge or the reverse	1 6	1 6
Dock to Suspension Bridge at Scotswood or <i>vice versa</i>	2 0	2 0
Bill Point to east side of Newcastle Bridge or <i>vice versa</i>	1 0	1 0
Bill Point to Scotswood Suspension Bridge or <i>vice versa</i>	1 0	1 0
East side of Newcastle Bridge to Scotswood Suspension Bridge or <i>vice versa</i>	1 0	1 0

Not less than 1/ foot to be charged for pilotage between any two stations as above. Vessels exceeding 500 tons reg. pay 4d per ton on the excess of tonnage above 500 tons for pilotage from sea to any of the docks, and 4d ton extra for pilotage to any part of the river west of any of the docks, and *vice versa*, but in no case shall this extra tonnage rate be paid between a vessel entering and leaving the port more than once inwards to the docks, once from the docks westward, once from any part of the river above the docks to the docks, and once from the docks or below the docks to sea. Vessels having lee-boards pay 5/ in addition to the above rates. In the case of vessels bound from or to sea from or to any of the docks and unable from any cause to enter or proceed to sea the same tide, pilots must, if required, attend the first following available tide to dock such vessels, or take them to sea, as the case may require, without any additional remuneration. For docking or transporting (not covered by the above) from tier to dock or from dock to tier, not ex. 200 reg. tons, 5/; 400, 7/6; 600, 10/; 800, 12/6; 1,000, 15/; 1,500, 17/6; 2,000, 20/; ex. 2,000, 25/. In the case of vessels exceeding 400 tons, two-thirds of the above rates are charged for moving vessels from tier to tier or from tier to any dry dock within 300 yards. For pilot's attendance in harb., when required on any vessels, when not ultimately engaged as pilot to such vessel, per day 7/6; for attending at the launch of any vessels in the river Tyne and conducting her to her mooring in dock or otherwise, not ex. 400 reg. tons 20/; 600, 25/; 800, 30/; 1,000, 32/6; 1,500, 35/; 2,000, 40/; ex. 2,000, 45/.

Towage.—The limits seaward, Souter Point S., Hartley Bates N., on the E. an imaginary line drawn three miles out to sea from the shore, and on the W. a line drawn southward across the river from the buoy on the Mussel Scarp, Low Lights, North Shields. Shields Harb. deemed to extend from the buoy on the Mussel Scarp to J. Young's West Dock Quay, South Shields. For the purposes of these rates, a ship one-third loaded pays the loaded towage, below one-third to pay the light towage. Vessels towing down the river and going into either dock pay the same as if going to Shields. All vessels towing down the river and going to sea direct, pay the river towage and half the sea towage. Fish-boats from Shields to Newcastle 15/; from Newcastle to Shields 12/; from Shields to sea 8/. Ships towed from sea to either dock direct—loaded 14d; light 12d, with a single boat. Ships towed out of the docks into the basin, or out of the basin into the dock, pay the shifting towage. But ships towed out of the river into the basin, or *vice versa*, to pay for one station. An addition of twopence to the shilling to be charged

upon the rates from sea to Shields, or from sea to either dock, direct. **Stations.** The river is divided into six stations, making Shields one starting point, Newcastle the other:—1st station, from Shields to either dock, Jarrow, or Willington Gut; 2nd station, from Shields to Hebburn and Wallsend; 3rd station, from Shields to Walker or Pelaw Main; 4th station, from Shields to Bill Quay or Felling; 5th station, from Shields to Dent's Hole or Tyne Main; 6th station, from Shields to Newcastle. **Screw Steamers Towage.** Screw steamers, when light, whether steaming or not, same as other ships; loaded, when steaming, to be allowed one-fourth off the regular rates; not steaming, same as other ships. **Towage Rates** within the limits at sea into Shields Harb., and to either dock, and from either dock to sea, or a single station, for vessels below 150 tons:—

Tons.	From Sea to Shields, or Shields to Sea.		Sea to Dock or Dock to Sea.		Shields to Dock, Dock to Dock, or a single Station.	
	Light.	Loaded.	Light.	Loaded.	Light.	Loaded.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
40	0 10 0	0 10 0	0 14 0	0 14 0	0 6 6	0 9 0
50	0 10 6	0 11 0	0 15 0	0 15 0	0 7 0	0 9 6
60	0 11 0	0 12 0	0 16 0	0 16 0	0 7 6	0 10 0
70	0 11 6	0 13 0	0 16 6	0 17 0	0 8 0	0 10 6
80	0 12 0	0 14 0	0 17 0	0 18 0	0 8 6	0 11 0
90	0 12 6	0 15 0	0 17 6	0 19 0	0 9 0	0 11 6
100	0 13 0	0 16 0	0 18 6	1 0 0	0 9 0	0 12 0
110	0 13 6	0 17 0	0 19 6	1 1 0	0 9 0	0 13 0
120	0 14 0	0 17 6	1 0 6	1 2 0	0 9 0	0 14 0
130	0 14 6	0 18 0	1 1 0	1 2 6	0 9 0	0 14 6
140	0 15 0	0 18 6	1 1 6	1 3 0	0 9 0	0 15 0
149	0 15 6	0 19 0	1 2 0	1 3 6	0 9 6	0 15 6

All vessels above 150 tons British

register:—	Loaded Vessels per Reg. Ton.	Light Vessels per Reg. Ton.
Sea to any part of Shields Harbour	1½	1½
Sea to Tyne or Northumberland Docks ... (The same out to Sea.)	1½	1½
Shields to either Dock, Jarrow, or Willington	1½	0½
Dock to Dock or a single Station	1½	0½
Shields to Sea	1½	1½

Shifting Tonnage:—

	Per Shift.	Per Shift.
	£ s. d.	£ s. d.
Vessels above 150 tons register—per reg. ton	0 0 8	0 0 5
Vessels below 150 tons register—		
“ under 50 “	0 5 0	0 4 0
“ under 100 “	0 6 0	0 5 0
“ under 150 “	0 7 6	0 6 0

River Towage. Vessels above 200 tons register. From Shields to the following stations:—

	Loaded Vessels per Reg. Ton.	Light Vessels per Reg. Ton.
	d.	d.
Shields to either Dock, Jarrow, or Willington	1½	0½
Shields to Wallsend	1½	1
Shields to Walker, or Pelaw Main	1½	1½
Shields to Bill Quay, or Felling	1½	1½
Shields to Dent's Hole, or Tyne Main	2	1½
Shields to Newcastle	2½	1½

From Newcastle to the following Stations:—

Newcastle to Tyne Main, or Dent's Hole ..	1½	0½
Newcastle to Felling or Bill Quay	1½	1
Newcastle to Pelaw Main, or Walker	1½	1½
Newcastle to Wallsend	1½	1½
Newcastle to Willington, or Jarrow	2	1½
Newcastle to either Dock or Shields	2½	1½

Newcastle station deemed to extend from Tyne Bridge to Ouseburn.

Vessels below 200 tons register. From Shields to the following stations:—

	1st Station. Docks, Jarrow or Willing- ton.		2nd Station. Wallsend.		3rd Station. Walker, or Pelaw Main.		4th Station. Bill Quay, or Felling.		5th Station. Dent's Hole, Tyne Main.		6th Station. Newcastle.	
Tons.	*	†	*	†	*	†	*	†	*	†	*	†
40.....	6/6	9/0	8/0	11/0	9/6	13/0	11/0	15/0	12/6	17/0	14/0	19/0
50.....	7/0	9/6	9/0	11/6	10/6	14/0	12/0	16/0	13/6	18/0	15/0	20/0
60.....	7/6	10/0	9/6	12/0	11/6	15/0	13/0	17/0	14/6	19/0	16/0	21/0
70.....	8/0	10/6	10/0	12/6	12/6	16/0	14/0	18/0	15/6	20/0	17/0	22/0
80.....	8/6	11/0	10/6	13/0	13/0	17/0	15/0	19/0	16/6	21/0	18/0	23/0
90.....	9/0	11/6	11/0	14/0	13/6	18/0	15/6	20/0	17/6	22/0	19/0	24/0
100.....	9/0	12/0	11/6	15/0	14/0	19/0	16/0	21/0	18/0	23/0	20/0	25/0
110.....	9/0	13/0	12/0	16/0	14/6	20/0	16/6	22/0	18/6	24/0	20/6	26/0
120.....	9/0	14/0	12/6	17/0	15/0	21/0	17/0	23/0	19/0	25/0	21/0	27/0
130.....	9/0	14/6	13/0	18/0	15/6	22/0	17/6	24/0	19/6	26/0	21/6	28/0
140.....	9/0	15/0	13/6	19/0	16/0	23/0	18/0	25/0	20/0	27/0	22/0	29/0
150.....	9/6	15/6	14/0	20/0	16/6	24/0	18/6	26/0	20/6	28/0	22/6	30/0
160.....	10/0	17/0	14/6	21/0	17/0	25/0	19/0	27/0	21/0	29/0	23/0	31/0
170.....	11/0	18/0	15/0	22/0	17/6	26/0	19/6	28/0	21/6	30/0	23/6	32/0
180.....	11/6	19/0	15/6	23/0	18/0	27/0	20/0	29/0	22/0	31/0	24/0	33/0
190.....	12/0	20/0	16/0	24/0	18/6	28/0	20/6	30/0	22/6	32/0	24/6	34/0
200.....	12/6	21/0	17/0	25/0	19/0	29/0	21/0	31/0	23/0	33/0	25/0	35/6

Below 200 tons register. From Newcastle to the following stations:—

	1st Station. Tyne Main, or Dent's Hole.		2nd Station. Felling, or Bill Quay.		3rd Station. Pelaw Main, or Walker.		4th Station. Wallsend.		5th Station. Willing- ton, or Jarrow.		6th Station. Docks, or Shields.	
Tons.	*	†	*	†	*	†	*	†	*	†	*	†
40.....	6/6	9/0	8/0	11/0	9/6	13/0	11/0	15/0	12/6	17/0	14/0	19/0
50.....	7/0	9/6	9/0	11/6	10/6	14/0	12/0	16/0	13/6	18/0	15/0	20/0
60.....	7/6	10/0	9/6	12/0	11/6	15/0	13/0	17/0	14/6	19/0	16/0	21/0
70.....	8/0	10/6	10/0	12/6	12/6	16/0	14/0	18/0	15/6	20/0	17/0	22/0
80.....	8/6	11/0	10/6	13/0	13/0	17/0	15/0	19/0	16/6	21/0	18/0	23/0
90.....	9/0	11/6	11/0	14/0	13/6	18/0	15/6	20/0	17/6	22/0	19/0	24/0
100.....	9/0	12/0	11/6	15/0	14/0	19/0	16/0	21/0	18/0	23/0	20/0	25/0
110.....	9/0	13/0	12/0	16/0	14/6	20/0	16/6	22/0	18/6	24/0	20/6	26/0
120.....	9/0	14/0	12/6	17/0	15/0	21/0	17/0	23/0	19/0	25/0	21/0	27/0
130.....	9/0	14/6	13/0	18/0	15/6	22/0	17/6	24/0	19/6	26/0	21/6	28/0
140.....	9/0	15/0	13/6	19/0	16/0	23/0	18/0	25/0	20/0	27/0	22/0	29/0
150.....	9/6	15/6	14/0	20/0	16/6	24/0	18/6	26/0	20/6	28/0	22/6	30/0
160.....	10/0	17/0	14/6	21/0	17/0	25/0	19/0	27/0	21/0	29/0	23/0	31/0
170.....	11/0	18/0	15/0	22/0	17/6	26/0	19/6	28/0	21/6	30/0	23/6	32/0
180.....	11/6	19/0	15/6	23/0	18/0	27/0	20/0	29/0	22/0	31/0	24/0	33/0
190.....	12/0	20/0	16/0	24/0	18/6	28/0	20/6	30/0	22/6	32/0	24/6	34/0
200.....	12/6	21/0	17/0	25/0	19/0	29/0	21/0	31/0	23/0	33/0	25/0	35/6

Rates for towing vessels above Newcastle Bridge: (1st station) from Newcastle Bridge to Elswick Sheer Legs; (2nd station) from Newcastle Bridge to Scotswood Suspension Bridge; (3rd station) from Newcastle Bridge to Lemington and Blaydon. A tonnage rate for vessels above 200 tons register from Newcastle Bridge to the following stations:—

	Reg. Ton.†	Reg. Ton.*
Newcastle to Elswick	12	0½
" Scotswood	12	1
" Lemington or Blaydon	12	1½
Blaydon to Scotswood	12	0½
" Elswick	12	—
" Newcastle	12	1½

Shifting tonnage same as below Bridge.

* Light.

† Loaded.

Vessels below 200 tons register. Newcastle to the following stations:—

Tons.	1st Station. Newcastle to Elswick.		2nd Station. Newcastle to Scotswood.		3rd Station. Newcastle to Blaydon.	
	Light. £ s. d.	Loaded. £ s. d.	Light. £ s. d.	Loaded. £ s. d.	Light. £ s. d.	Loaded. £ s. d.
40	0 6 6	0 9 0	0 8 0	0 11 0	0 9 6	0 13 0
50	0 7 0	0 9 6	0 9 0	0 11 6	0 10 6	0 14 0
60	0 7 6	0 10 0	0 9 6	0 12 0	0 11 6	0 15 0
70	0 8 0	0 10 6	0 10 0	0 12 6	0 12 6	0 16 0
80	0 8 6	0 11 0	0 10 6	0 13 0	0 13 0	0 17 0
90	0 9 0	0 11 6	0 11 0	0 14 0	0 13 6	0 18 0
100	0 9 0	0 12 0	0 11 6	0 15 0	0 14 0	0 19 0
110	0 9 0	0 13 0	0 12 0	0 16 0	0 14 6	1 0 0
120	0 9 0	0 14 0	0 12 6	0 17 0	0 15 0	1 1 0
130	0 9 0	0 14 6	0 13 0	0 18 0	0 15 6	1 2 0
140	0 9 0	0 15 0	0 13 6	0 19 0	0 16 0	1 3 0
150	0 9 6	0 15 6	0 14 0	1 0 0	0 16 6	1 4 0
160	0 10 0	0 17 0	0 14 6	1 1 0	0 17 0	1 5 0
170	0 11 0	0 18 0	0 15 0	1 2 0	0 17 6	1 6 0
180	0 11 6	0 19 0	0 15 6	1 3 0	0 18 0	1 7 0
190	0 12 0	1 0 0	0 16 0	1 4 0	0 18 6	1 8 0
200	0 12 6	1 1 0	0 17 0	1 5 0	0 19 0	1 9 0

The following scale of 2d in the shilling is to be added to and charged in addition to the above towage rates:—

Scale under £1.		Scale above £1.	
s.	£ s. d.	£	£ s. d.
1	0 0 2	1	0 3 4
2	0 0 4	2	0 6 8
3	0 0 6	3	0 10 0
4	0 0 8	4	0 13 4
5	0 0 10	5	0 16 8
6	0 1 0	6	1 0 0
7	0 1 2	7	1 3 4
8	0 1 4	8	1 6 8
9	0 1 6	9	1 10 0
10	0 1 8	10	1 13 4
11	0 1 10	11	1 16 8
12	0 2 0	12	2 0 0
13	0 2 2	13	2 3 4
14	0 2 4	14	2 6 8
15	0 2 6	15	2 10 0
16	0 2 8	16	2 13 4
17	0 3 0	17	2 16 8
18	0 3 2	18	3 0 0
19	0 3 4	19	3 3 4
20	0 3 6	20	3 6 8

Officials (*Tyne Commissioners*).—Sec., Robert Urwin; Engineer, P. J. Messent; Harb. Master, North Shields, J. Bruce; Harb. Master, Newcastle, C. Wilson; Dock Master (*Northumberland and Albert Edward Docks*), T. Glover; Supt. of River Police, R. Farmer; Coll. of Dues on Goods, T. D. Hume; Dock Supt. W. B. Emmerson.

Hotels.—"Central," "Alliance," "Douglas," "County," "Turf," "Central Exchange," &c.

NEW GRIMSBY.—See Scilly.

NEW HOLLAND, on the Humber, opposite Hull.

NEWHAVEN, Edinburghshire.—See Leith.

NEWHAVEN, Essex. On the NW. extremity of Seaford Bay, at the mouth of the river Ouse. Lat. 50° 46' 55" N; long 0° 3' 40" E. Pop. 4,000. Auth. Newhaven Harb. Company.

under Acts 10 Vict., c. 9, and 26 and 27 Vict., c. 184. P. NC. THW. 11h 41m; Sp. rise 20ft; N. rise 15ft. W. prev. from SW. and SSW. Ry. L.B. & S.C. Tr.—I. Silks, wines, spirits, coal, timber, corn, &c. E. General merchandise. LV. during the last 20 years was s.s. *Martinique*, 1,111 tons reg., steamers of 1,000 tons trading regularly; vessels drawing 10ft can enter the harb. at any state of the tide, a channel 150ft wide having been dredged through the bar, 10ft below LWST. Accn. The harb. is formed by two piers, the East 1,300ft long, and the West 750ft long; W. of E. 250ft. The area inside the entrance piers is about 30 statute acres, or a total length below bridge of 1,400yds, and an average width of 325ft. The lower half below the Mill Creek is 10ft deep at LW., and the upper half above the Mill Creek 6ft deep at LW. There is considerable mooring space above bridge in addition to this acreage. The breakwater has been completed for about seven-eighths its length. The sea walls are completed, also the new entrance piers and lighthouses. The new quay is approaching completion, and the dredging, to enable vessels drawing 10ft to enter and depart from the harb. at any state of the tide is completed, and further dredging is in active operation. The total length of quays inside the harb. is 1,400yds. The Harb. Company have purchased the lands on each side of the harb., and extending along the foreshore for 2,666yds. comprising about 228 statute acres, this large area being to a great extent available for future extension of docks, quays, &c. The dock works have not been commenced, but it is intended to construct a dock 24 acres in extent, with a depth of water on the sill of lock entrance of 26ft at HW. On the W. side of the harb. are a series of landing stages, used principally by sailing vessels in the local and coasting trade, where vessels are partly waterborne on soft mud. Shear-legs 111ft high, to lift 50 tons. Whole of quay supplied with steam cranes. Gridiron 220ft long. Good accommodation for coaling, ballasting, repairing, &c. A lifeboat station.

Charges.—(1) All vessels entering, using, or departing from the harb.; coasting vessels (of whatever tonnage) 3d; other vessels of 150 tons and under 3d; other vessels above 150 and not exceeding 250 tons 4d; other vessels above 250 tons 6d per reg. ton. (2) On all vessels entering, using, or departing from the dock 1/ per reg. ton. (3) All vessels to be permitted to enter the harb. for safety on payment of one-half of the rates, but if such vessels shall remain in the harb. or the dock beyond the space of twenty-one days, or shall take goods on board (stores for their own use excepted) or break bulk, they shall be liable in the full rates. (4) All vessels remaining in the harb. in working berths to pay after one month 2d per reg. ton per month in advance when they are lying in the harb., and 4d per ton when lying in the dock. (5) All vessels with fish of any kind for curing, per ton reg. or admeasurement, 2d each ton. (6) All fishing-boats entering the harb. with fresh fish, 4d each.

Exemptions from Rates on Vessels. (1) Vessels on which the rates in respect of the dock have been paid shall not be liable to any additional rates for entering, using, or departing from the harb. (2) All vessels leaving the harb. for the purpose of taking on board ballast in and returning to the harb. with ballast shall not be liable in rates for such return. (3) All vessels arriving in the harb. in ballast and departing again in ballast shall be subject only in half rates, but if such vessels after arriving in ballast shall take in cargoes

or parts of cargoes before their departure they shall be liable in full rates.

Pilotage.—District. From Dungeness westward to Brighthelmstone (inclusive), and from Brighthelmstone (inclusive) to Dungeness. Rates (inwards and outwards). Coast pilotage from Dungeness to the West End of the Owers :—

	£ s. d.		£ s. d.
7ft water and under.....	2 16 6	16ft.....	6 15 0
7 to 10	4 4 6	17	7 2 0
11	4 13 0	18	8 5 0
12	5 1 6	19	9 15 0
13	5 9 6	20	11 5 0
14	5 18 0	21	12 15 0
15	6 6 0	Above 21	13 10 0

Harb. pilotage, 8ft dft and under, 1/6; above 8ft and not ex. 10ft, 1/9; above 10ft and not ex. 12ft, 2/6; above 12ft and not ex. 14ft, 3/; above 14ft and not ex. 16ft, 3/6; 16ft and upwards, 4/ foot. Pilotage for the beaches of Brighthelmstone, Hastings, or Bexhill : 8ft and under, 1/3; 8 to 10ft, 1/9; above 10ft 2/ foot. Ships in distress pay according to circumstances.

Towage.—Inwards and outwards, all vessels not less than 100 tons 4d; inwards only 2½; outwards only 2½d ton. By special arrangements, in and out 3d; all vessels under 60 reg. tons, in or out 12/6; all vessels under 100 tons at the rate of 12/6 keel.

Officials.—Gen. Man. and Sec. L.B. & S.C., Allen Sarle; Engineer, F. D. Bannister, C.E.; Supt. of Steamers and Harb Master, Capt. R. G. White; Coll. of H.M. Cust., J. Ritchie.

Hotels.—The "London and Paris," "Harbour Station," "Bridge," "Ship," &c.

NEWLYN, Cornwall. Mount's Bay. Lat. 50° 5' N; long. 5° 30' W. A small harb., dry at LW.

NEWPORT, Pembrokeshire, a small creek about 6 miles ENE. of Fishguard.

NEWPORT, Fifeshire. Lat. 56° 26' N; long. 2° 57' W. On the Firth of Tay, within the limits of Dundee Harb.

NEWPORT, I. of Wight. River Cowes. Vessels drawing up to 6ft get up to the quays.

Official.—Town Clerk, R. Roach Pittis, Sol.

NEWPORT, Mayo. Lat. 53° 53' N; long. 9° 30' W. No vessels can enter at LW. Used by craft up to 160 tons. W. prev. and most dang. W and SW. Owned by Sir C. O'Donnell, Bart., of Newport.

NEWPORT, Monmouthshire. Lat. 51° 30' N; long. 3° 0' W. Pop. 54,000. Auth. Of the Dock, Alexandra (Newport and S. Wales) Docks & Ry. Co.; of the Harb., the Harbour Commissioners, under Acts 6 Will. IV., c. 46, and 32 and 33 Vict., c. 118. P. C. THW. f. and c. 7h 10m; Sp. rise 38ft; N. rise 29ft. W. prev. SW. Rys. G.W., L. & N.W., M., Pontypridd C. & N., and B. & M. Tr.—I. Iron ore, pig iron, timber, pitwood, fibre, grain, &c.; E. Coal, coke, bark, manufactured iron, tinplates, &c. LV. ss. *Carmona*, 3,714 tons. Accn. *Alexandra Dock*, length 2,500ft, breadth 500ft, width of trumpet-mouthed

entrance 300ft, entrance lock length 350ft, entrance lock width 65ft, depth of water over outer sills AST. 35ft, ANT. 25ft, area $28\frac{1}{2}$ acres; area of land appropriated for quays, warehouses, &c., 240 acres, for deposit of ballast free of charge for present works 93 acres. *Old Dock*: Length 1,753ft, width 300ft, entrance lock, length 220ft, width 61ft, depth of water over outer sills AST. 31ft, ANT. 20ft, area $11\frac{1}{2}$ acres. *Alexandra Graving Dock*: This dock is entered from the main wet dock, thus effecting a large saving of time, charges, and labour. Dimensions are, length from gates to head 532ft, on blocks 515ft, width of entrance 50ft, of dock 74ft, average depth of water on sill 20ft. *Timber float*: Area of water for storage of timber in bulk 10 acres, average depth of water 8ft. The float is provided with ample siding accn. Twenty hydraulic and steam cranes in docks, two of 15 tons' power, and sheer legs for masting. Fitting shops and all conveniences for repairing vessels. A lifeboat station.

Name of Dry Docks, &c.	Owner.	Length.	Breadth.	Depth over sill OHW.	Remarks
Alexandra	Alexandra Dock Co.	ft. 534	ft. 70	ft. 20	Entered from wet dock.
Old Dry Dock No. 1....	Mordey, Carney & Co.	222	36	19	Tidal dock.
Do. do. No. 2....	Do.	289	46	25	
Dock No.	N.S.D.D. & E. Co., Ltd.	380	57½	22	
Gridiron (on the Usk) ..	.....	247	37 *	—	

Pilotage.—District. The Bristol Channel to the eastward of Lundy Island, up to and including King Road and the River Usk, as far as Caerleon Bridge. **Rates**:—

For Laden and Unladen Vessels.	Under 100 Tons.	100 Tons and under 200.	200 Tons and under 300.	300 Tons and under 400.	400 Tons and under 500.	500 Tons and under 600.	600 Tons and under 700.
From Newport to River's Mouth and <i>vice versa</i> .	£ s. d. 0 10 0	£ s. d. 0 15 0	£ s. d. 0 17 6	£ s. d. 1 2 6	£ s. d. 1 5 0	£ s. d. 1 6 0	£ s. d. 1 8 0
From Newport to Holmes, and <i>vice versa</i> .	0 15 6	1 0 0	1 10 0	1 15 0	2 1 0	2 3 0	2 8 0
From Newport to Nash Point or Minehead, and <i>vice versa</i> .	1 2 6	1 15 0	2 5 0	2 17 6	3 1 0	3 5 6	3 13 0
From Newport to Ilfracombe or East of Coombe and <i>vice versa</i> .	1 12 6	2 7 6	3 5 0	3 12 6	4 3 6	4 10 6	5 3 0
From Newport to Lundy Island or West of Ilfracombe, and <i>vice versa</i> .	2 5 0	3 0 0	4 0 0	4 12 6	5 6 0	5 18 0	6 13 0

For Laden and Unladen Vessels.	700 Tons and under 800.	800 Tons and under 900.	900 Tons and under 1,000.	1,000 Tons and under 1,200.	1,200 Tons and under 1,500.	1,500 Tons and under 1,800.	1,800 Tons and upwards.
	£ s. d.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.
From Newport to River's Mouth, and <i>vice versa</i> .	1 9 0	1 10	1 12	1 15	2 5	2 10	3 0
From Newport to Holmes, and <i>vice versa</i> .	2 10 0	2 12	2 15	3 0	3 10	4 0	4 10
From Newport to Nash Point or Minehead, and <i>vice versa</i> .	3 15 0	4 2	4 5	5 0	5 10	6 10	7 5
From Newport to Ilfracombe or East of Coombe, and <i>vice versa</i> .	5 7 6	5 17	6 0	7 0	8 0	9 5	9 15
From Newport to Lundy Island or West of Ilfracombe, and <i>vice versa</i> .	6 15 0	7 17	8 0	9 10	11 0	12 0	13 0

Towage.—Short distance in river 1d; entire length of river, docks to mouth of Usk 3d; to the Spit, 3½d; to the Holmes 4d; to Nash Point 6d; to Ilfracombe 8d; to Lundy 10d reg. ton.

Officials.—Sec. (Alexandra Dock Co.), J. S. Adam, Esq.; Harb. Master, R. B. Fugsley; Coll. of H.M. Cust., F. Evans.

Hotels.—"Westgate," "King's Head," and "Queen's."

NEW QUAY, Cardiganshire. Lat. 52° 13' N; long. 4° 21' 10" W. **Auth.** Harbour Co. A small harb., dry at LW.; 15ft HWST. A patent slipway. A lifeboat station.

Official.—Harb. Master, J. Davies.

NEW QUAY, Cornwall. Lat. 50° 29' N; long. 5° 5' W. **Auth.** G.W. Ry. Co., by statute July, 1838. **Accn.** Area about 3½ acres. A jetty 358ft. Dry at LW.; 18ft HWST. Used by vessels up to 120 tons, and steamers of 150 tons. W. prev. E. A lifeboat station.

Official.—Sec., J. D. Higgins, Paddington; Harb. Master, J. A. Clark.

Hotel.—"Great Western."

NEW ROSS, Seaport. Lat. 52° 23' N; long. 6° 56' W. **Pop.** 6,626. **Auth.** Harbour Commissioners, subject to the Waterford Harbour Commissioners. **P. NC.** THW. f. and c. 6h 4m; Sp. rise 12½ft; N. rise 10ft. **D.** at the En. to the harb. LWST. 14ft. **W.** prev. and most dangerous SW. **Rys.** D.W. & W. **Tr.**—I. Fish, timber, maize, wheat, rice, and coal; E. Corn, flour, malt, pit-wood, &c. **LV.** ss. 982 tons. No vessel can come up to New Ross over the sand banks at LW. drawing more than 4ft, but may enter the river drawing 11ft. **Accn.** Quay 600ft long at which vessels of 600 tons can discharge. Depth of water at LST. along quay from 8 to 10 and 16ft. Good crane and warehouse accommodation.

Charges.—Harb. dues, vessels up to 250 tons 3d reg. ton, 250 tons and upwards varies up to 7½d ton. Ballast 1/6 ton, limestone 2/6.

Pilotage.—**District.** From the junction of the river Barrow with the river Suir, to the entrance to the canal at St. Mullin's, on

the river Barrow, and to the lock quay of Inistioge, on the river Suir. **Rates** :—

Reg. Tonnage.	Foreign.	U. K.	Reg. Tonnage.	Foreign.	U. K.
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
30 and under 40..	0 8 0	0 5 0	272 and under 300..	2 9 6	1 13 0
40 "	50.. 0 10 0	0 6 0	300 "	325.. 2 11 9	1 14 6
50 "	60.. 0 11 6	0 7 6	325 "	350.. 2 14 0	1 16 0
60 "	70.. 0 15 9	0 10 6	350 "	375.. 2 16 3	1 17 6
70 "	80.. 0 18 0	0 12 0	375 "	400.. 2 18 6	1 19 0
80 "	90.. 1 0 3	0 13 6	400 "	450.. 3 0 9	2 0 6
90 "	100.. 1 2 6	0 15 0	450 "	500.. 3 5 3	2 3 0
100 "	110.. 1 4 9	0 16 6	500 "	550.. 3 9 9	2 5 6
110 "	120.. 1 7 0	0 18 0	550 "	600.. 3 14 3	2 8 0
120 "	130.. 1 9 3	0 19 6	600 "	650.. 3 18 9	2 10 6
130 "	140.. 1 11 6	1 1 0	650 "	700.. 4 3 3	2 13 0
140 "	150.. 1 13 9	1 2 6	700 "	750.. 4 7 9	2 15 6
150 "	160.. 1 16 0	1 4 0	750 "	800.. 4 12 3	2 18 0
160 "	175.. 1 18 3	1 5 6	800 "	850.. 4 16 9	3 0 6
175 "	200.. 2 0 6	1 7 0	850 "	900.. 5 1 3	3 3 6
200 "	225.. 2 2 9	1 8 6	900 "	950.. 5 5 9	3 5 0
225 "	250.. 2 5 0	1 10 0	950 "	1,000.. 5 10 3	3 8 0
250 "	275.. 2 7 3	1 11 6	1,000 and upwards	5 14 9	3 10 6

All vessels proceeding up the port and harb. above the limits of the borough of New Ross, pay additional rates not exceeding one-third more than the above rates.

Towage.—Between Passage and Waterford, and from Cheek-point to New Ross.

Reg. Tons.	Ballast.	Loaded.	Reg. Tons.	Ballast.	Loaded.
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
150 to 180	2 5 0	3 0 0	350 to 400	6 0 0	9 0 0
180 " 200	2 15 0	3 10 0	400 " 450	6 10 0	10 0 0
200 " 220	3 5 0	4 10 0	450 " 500	7 0 0	11 0 0
220 " 240	3 15 0	5 10 0	500 " 550	7 10 0	12 0 0
240 " 260	4 0 0	6 10 0	550 " 600	8 0 0	13 0 0
260 " 280	4 10 0	7 0 0	600 " 650	8 10 0	14 0 0
280 " 300	5 0 0	10 0 0	650 " 700	9 0 0	15 0 0
300 " 350	5 10 0	10 0 0			

Small vessels according to agreement.

New Ross has ceased to be a customs port, and is now under Waterford.

NEWRY, Co. Down. At the head of Carlingford Bay. Lat. $54^{\circ} 10' N$; long $6^{\circ} 16' W$. Pop. 15,500. Auth. Newry Nav. Co., under a statute of Geo. IV. P. NC. THW. f. and c. at Needham Bridge 11h 43m; Sp. rise 6ft 10in. There is a channel cut through the bar 400ft wide, with a depth at LWST. of 15ft. W. prev. and most dangerous SE. Rys. G.N., D.N. & G. Tr.—I. Coal, iron, grain, timber, &c; E. Linen, agricultural produce, granite, &c. LV. *Lady Havelock*, 849 reg. ton. Accn. is a navigable river from Warrenpoint to the sea lock at Fathom; a ship canal from Fathom to Newry, and a quayside through Newry for vessels drawing 10½ft, and an inland canal from Newry to Portadown. Entire length of navigation about 46 miles. The area of docks is 9 acres. There are also berths along the sides of the canal through the town of Newry for vessels drawing 9 and 10ft; the length of canal is 3,250ft. The quayside is 3,740ft, including 870ft round Ballast Bank for vessels up to 12½ft dft., and the quayside along canal for vessels up to 10ft dft. is about 3,250ft on each side. The navigation depends on a tidal river, in which there is a depth of 7ft at LWST. Vessels drawing up to 15½ft can enter at HW. to sea lock, but can only enter old part of canal and dock

(Albert Basin) drawing 12½ ft. Lock is 220 ft long, 50 ft wide, and 17 ft deep.

Charges.—Harb. dues 1/1 reg. ton; cargo dues, as per schedule.

Pilotage.—**District.** From Lough Carlingford to the entrance to the Newry Canal, or river of Newry. **Rates.** River pilotage—For every vessel inwards 1d, outwards ½d reg. ton; if the pilot is required to remain on board the vessel while passing through the canal to or from Newry 2/6 additional.

Towage.—As per agreement.

Officials.—Sec., George R. Armstrong; Harb. Master, J. McVeigh; Coll. of H.M. Cust., E. Holmes.

Hotels.—"Victoria," "Imperial," &c.

NEYLAND.—See Milford New.

NORTH BERWICK.—See Berwick, North.

NORTH SHIELDS. (See Newcastle, and Shields, South.)
Lat. 55° 0' 30" N; long. 1° 26' W.

Corporation Quay 1,600 ft long, 29 ft HWST. Has two steam cranes (10 tons) and one hand crane (5 tons). There are three dry docks and a patent slipway.

NORTH SUNDERLAND, Northumberland. Lat. 55° 35' N; long. 1° 40' W. **Auth.** Trustees of the late Lord Crewe. A small harb., capable of holding about 60 fishing boats. **THW.** at f. and c. 2h 30m. A lifeboat station.

Official.—Harb. Master, G. Tait.

OBAN, Argyleshire, Sound of Mull. Lat. 56° 29' 50" N; long. 5° 28' 20" W. **Auth.** Proprietor, J. Stuart McCaig, under Oban Pier and Harbour Act, 1862. **W.** prev. W. most dang. N. **Accn.** Area of harb. 20 acres, length of quayage 2,000 ft. Used by steamers of 100 to 600 tons. **THW.** f. and c. 5h 22m. The Callander & Oban Ry. Co. have a quay at Oban in about 10 ft LW., constructed under Act 41 and 42 Vict., c. 167, s. 40.

Officials.—Harb. Master, C. McCulloch; Pier Master and Collector, Duncan Chisholm.

OBB HARBOUR, Harris Sound, Hebrides. Lat. 57° 48' N long. 7° 5' W. Anchorage in 3 fathoms—the best in Harris.

OBEMEAVIG, Lewis, Hebrides. Lat. 58° 12' N; long. 7° 2' W. A good harbour. Anchorage in 3 to 2 fathoms.

ORFORD, Suffolk. Lat. 52° 5' N; long. 1° 34' 40" E. A decayed seaport town at the confluence of the Alde and Ore. **Auth.** Corporation. A harb. with a bar, the shingle banks shifting. **THW.** f. and c. 12h 30m.

Official.—Harb. Master, H. Gibbs.

ORKNEY ISLANDS. Lat. between 58° 40' and 59° 24' N; long. between 2° 22' and 3° 26' W.

A cluster of islands in the North Sea, separated from the N. coast of Scotland by the Pentland Frith. The Orcaades of the ancients. They are 67 in number, but many are uninhabited, and afford only pasture for sheep. The principal are Mainland or Pomona, Hoy, North Ronaldsha, South Ronaldsha, Sanda, Stronsa, Eday, Westra, Shapinsha, Gremsa, Ronsa, Gairsa, Sand, Papa Westra, Papa Stronsa, and Burra. Produce barley, potatoes. Manufactures, straw plait and whisky. **Pop.** about 31,000, of whom about 18,000 reside in Mainland.

ARMOND HARBOUR, Kenmare Bay, Ireland.

PADSTOW, Cornwall. On the Camel. Lat. $50^{\circ} 33' N$; long. $4^{\circ} 57' W$. Pop. 1,949. Auth. Harbour Commissioners. P. NC. THW. 5h 13m; Sp. rise $20\frac{1}{2}$ ft; N. rise $16\frac{1}{2}$ ft; D. LW. 16ft. W. prev. NW. Ry. L. & S. W. Tr.—I. Iron and coal; E. Tin, slates, and corn. LV. 1,373 tons. Vessels drawing 16ft can enter at LT.

Charges.—Harb. dues 1d ton on every vessel registered at any port in U.K., and 1d for every ton measurement foreign vessels.

Pilotage.—District. Between the Moulds eastward of Pentyre Point and the Quays westward of Trevoise Head. Rates per foot. Between Stepper Point and Padstow inwards, on vessels of 50 tons per reg. and under; 9ft dft. and under, 10d, more than 9ft, 1/; on vessels above 50 tons and not ex. 100 tons, 10ft dft. and under, $1\frac{1}{2}$, 11ft and under 12ft, $1\frac{1}{6}$, 12ft and upwards, 2/; on vessels above 100 tons and not ex. 150, 9ft dft. and under, $2\frac{1}{6}$, above 9ft and under 12ft, 3/, above 12ft and under 16ft, 4/, above 16ft and upwards, 5/; outward pilotage one-half the inward rate. Inwards or outwards, vessels above 150 tons and not ex. 200 tons, 9ft dft. and under, 3/, above 9ft and under 12ft, 4/, above 12ft and under 16ft, 5/, above 16ft and upwards, 6/; on vessels ex. 200 tons, 9ft dft. and under, 4/, above 9ft and under 12ft, 5/, above 12ft and under 16ft, 6/, above 16ft and upwards, 7/. Vessels taking a pilot on board to seaward of a line drawn from Pentyre Point to Gunver Head, but within a line from the Moulds to the Quays pay 1/ per foot in addition to the rates above. Vessels taking a pilot to seaward of such line, but within the distance of three leagues of the land, pay $1\frac{1}{6}$ foot in addition to the said rates. A pilot taken on board a vessel at sea, is entitled to the following additional pay, viz:—If at 3 leagues from the land £2, if at 6 leagues from the land, £2 13s 4d, if at 10 leagues of the land, £4. Vessels piloted from Padstow to sea, and returning in consequence of stress of weather, contrary winds, or accident, into the port, within 36 hours from the time of sailing, are subject to half pilotage. Pilots detained on board of vessels are paid 10/6 per day. Pilots boarding vessels not in charge of unlicensed men after they have arrived abreast of the Inner Capstan, are not entitled to more than three-fourths of the pilotage for piloting a vessel from Stepper Point to Padstow; if after they shall have arrived abreast of Gun Point, not more than two thirds; and if after they shall have arrived abreast of St. Saviour's Point, not more than one-half. Pilots boarding vessels in charge of unlicensed men before they arrive abreast of the Inner Capstan, are entitled to receive three-fourths, and the unlicensed man one-fourth of the pilotage for piloting a vessel from Stepper Point to Padstow; if at Hawker's Cove, the pilot and the unlicensed man are entitled to one-half of such pilotage; if after the vessel has arrived at a line from Gun Point to Trebetherick, the pilot is entitled to one-fourth, and the unlicensed man, three-fourths; if after the vessel has arrived at St. Saviour's Point, the unlicensed man is entitled to the whole of such pilotage.

Towage.—As per agreement.

Officials.—Clerk to Commrs., S. Pollard; Harb. Master and Coll. of Harb. Dues, S. Allport; Coll. of H.M. Cust., E. K. Finell.

Hotel.—"Commercial," Mrs. J. Willis.

PAINGTON, Devonshire. 6 miles E. of Totnes. A small harb., dry at LW. **Auth.** Harb. Commrs., under Act 1 Vict., c. 1. **W.** prev. W. and SW., most dang. NE.

Official.—Harb. Master, T. M. Kelligrew.

PAISLEY, or Cart River, Renfrewshire. At the entrance of the White Cart into the Clyde. **Ry.** G. & SW. **Auth.** River Cart Trustees, under the Burgh and Cart Nav. Act, 1872. **D.** 3ft LWST. **W.** prev. W. and SW.

Officials.—Young & Martin, Clerks to Trustees.

PALNACKIE or **BARLOCHAN**. A creek of port of Dumfries.

D. HWST. 10ft 6in; HWNT.

5ft 6in. No harb. dues.

Official.—Acting Harb. Master, J. Carsewell.

PAR, Cornwall. Lat. $50^{\circ} 23' N$; long. $4^{\circ} 29' W$. **Auth.** Owner, C. E. Treffy. **Accn.** Tidal harb. with one dock, protected by a breakwater about 1,200ft long. **D.** Dry at LW.; HWNT 9ft, HWST 14ft. **En.** 150ft wide. Quay frontage 1,500ft. Used by colliers. **THW.** f. and c. 5h 12m.

Official.—G. Richardson.

PASSAGE.—See Cork.

PASSAGE EAST, Waterford (see Waterford). A fishing village and roadstead on the River Suir.

Hotels.—"Kavanagh's" and "Love's."

PAULL. A Yorkshire fishing village and fortified station on the Humber, 6 miles below Hull.

PAWLETT.—See Bridgwater.

PEEL.—See Isle of Man.

PEMBREY, Barry Inlet, Carmarthenshire. A harb. of about 8 acres, with a quay about 250ft long, belonging to the Explosives Co., Ltd., of St. Swithin's Lane, London. **W.** prev. SW. and W. The harb. is protected from N. and E. by a range of hills.

PEMBROKE DOCK, Milford Haven. An extensive Government dock and shipbuilding yard. **Ry.** Pembroke & Tenby. There are two dry docks at this place. **THW.** f. and c. 6h 12m.

Official.—Queen's Harb. Master, J. E. Chapple.

PENARTH (Port of Cardiff). Lat. $51^{\circ} 27' N$; long. $3^{\circ} 10' W$. **Pop.** 12,000. **Auth.** Taff Vale Railway Co., under Acts 19 and 20 Vict., c. 122; 20 and 21 Vict., c. 69; and 44 Vict., c. 51. **P.** NC. **THW.** f. and c. 6h 56m; Sp. rise $37\frac{1}{2}$ ft; N. rise 29ft. **W.** prev. are W. to SW. The only winds which can, from the position of the dock and harb. entrances, be termed in any degree dangerous are from NE. to ESE. **Ry.** T.V. **Tr.**—I. Timber and general; E. Principally coal. **LV.** at any time, ss. *Lismore*, 2,716 reg. ton. Vessels cannot enter at LWST. **Accn.** Penarth Tidal Harb.—Length, measuring along centre of river, 13,000ft; frontage Cardiff side 12,000ft; frontage on Penarth side 3,000ft; total 15,000ft. Av. width at water line at HW., for the first reach of the river 600ft, length 4,000ft; area 55 acres; when the depth of water is 15ft 280ft, area 26 acres. Ten staiths for shipment of coal; capacity of each 150 tons per hour. Four cranes, each capable of unloading 50 tons per hour. *Depth of water in the berths at* HWST. 30ft; HWNT. 20ft.

Vessels up to 800 tons burthen take the ground. Particulars of Accn.:—

Name.	Length.	Width.	Area.	Length of Lock.	Width of Entrance.	Depth of Water.	
						OST.	NT.
	ft.	ft.	acres.	ft.	ft.	ft.	ft.
Dock	2,900	370	23	270	60	35	25
Basin	400	330	3	—	60	35	25

Patent Slipway to take Vessels 310ft long and 2,200 tons burthen.

Gridiron, 400ft long, for vessels up to 2,500 tons.

There are 14 high-level coal tips in the dock and 2 in the basin. Cranes, worked by hydraulic power, for the discharge of ballast, iron ore, &c. There are also the Windsor slipways between Penarth and Cardiff, taking vessels of the largest tonnage.

Charges.—Tidal Harb. rates $\frac{1}{2}$ d and 1d ton, according to size. Dock rates on vessels $\frac{1}{2}$ d to 9d ton.

Pilotage.—See Cardiff.

Towage.—Same as Cardiff.

Officials.—Taff Vale Railway Co., Cardiff, Sec. and Goods Supt., John Jones; Traffic Man., J. Hurman; Penarth Dock Master, W. M. Pengelley; Supt. and Collector, J. Edwards; Staith Master, H. Griffiths.

PENRHYN, Cornwall. Lat. $50^{\circ} 10' N$; long. $5^{\circ} 5' W$. Auth. Corporation, under Statute 33 and 34 Vict. c. 82, and Prov. Order, 1870. Ry. S.D. & C. Harb. dries at LW. D. 9ft HWNT., and 12ft 6in at HWST. THW. f. and c. 5h 2m. There are several private wharves, and crane power to 20 tons.

PENTEWAN, Cornwall. Lat. $15^{\circ} 17' N$.; long. $4^{\circ} 46' W$. Pop. 300. Auth. Owner, C. H. T. Hawkins. Accn. Dry at low water. Used by vessels drawing 13ft, and up to 300 tons. THW. at f. and c. 5 o'clock.

Official.—C. Anthony, Harb. Master.

PENZANCE, Cornwall. Mount's Bay. Lat. $50^{\circ} 8' N$; long. $5^{\circ} 35' W$. Pop. 12,409. Auth. Mayor, Aldermen, and Burgesses, under Act, 1883, and Prov. Order, 1870. P. C. THW. 4h 30m; Sp. rise $16\frac{1}{2}$ ft; N. rise $12\frac{1}{2}$ ft. D. 26ft to 13ft HWST. W. prev. NW., most dangerous SSE. Ry. G.W. Tr.—I. American and Baltic timber, coal, hides, tallow, grain, hemp, fruit, potatoes, dynamite, &c.; E. Copper, tin, granite stones, fish, potatoes, china clay, arsenic, iron ore, &c. LV. William Cory, s., 1,244 tons. Accn. Area of harb., formed by Albert Pier, 24 acres, with 16ft depth at ST., and 12ft NT. Floating dock area $3\frac{1}{2}$ acres, depth on sill ST. 21ft, NT. 17ft, width of entrance 50ft. Graving dock, 250ft long, width of entrance 40ft, depth on sill HWST. $12\frac{1}{2}$ ft. Warehouse accommodation. Wharfage space of about 4,700ft.

Charges.—Harb. dues, keelage in outer harbour 3d ton; in dock, coasters 5d ton; foreign 6d ton.

Pilotage.—District. From the Lizard to Cape Cornwall, and *vice versa*. Rates. From sea, and *vice versa*, to either of the roadsteads or piers in Mount's Bay, 7ft and under, 10/; 8 to 10ft, 16/; 11ft, 24/; 12ft, 30/; 13ft, 35/; 14ft, 40/; 15ft, 45/; 16ft, 50/; 17ft, 55/; 18ft, 60/; 19ft, 67/; 20ft, 77/; 21ft, 87/; 22ft, 97/1. From all roadsteads, and *vice versa*, to either of the different piers in Mount's

Bay 1/6 foot dft. Coasting vessels one-half these rates. Boats and vessels boarded by pilots at a distance southward of the Bay :— For putting a pilot on board without a line drawn from the Lizard to Tol Peden Penwith, £2 2s; for putting a pilot on board within a line drawn from the Lizard to Tol Peden Penwith, and without a line drawn from Carn Dew to Pengwinion Point £1 1s; for putting a pilot on board within a line drawn from Carn Dew to Pengwinion Point, and without a line drawn from St. Clement's Isle to Trewanas Head 10/; and within those limits, inwards only 5/. No master of a vessel is compelled to take a pilot for Mount's Bay and Penzance within this district until he comes within a line drawn from St. Clement's Isle to Trewanas Head.

Towage.—As per agreement.

Officials.—Town Clerk, T. Cornish; Harb. Master, J. Murrish; Ry. Man., J. Peach; Supt. H.M. Cust., L. C. Read.

Hotels.—"Queen's," "Railway," "Union," "Western and Mount's Bay."

PERTH, Perthshire. On the Tay, 22 miles above Dundee, and 29 miles from the sea. Lat. $56^{\circ} 24' N$; long. $3^{\circ} 29' W$. Pop. 29,800. Auth. Town Council of Perth, under statute. P. NC. THW. f. and c. 3h 35m; Sp. rise $9\frac{1}{2}$ ft. D. The Tay up to Dundee is navigable for ships drawing 23ft at ST. W. prev. There is no danger from winds. Rys. Cal., N.B., and H. Tr.—I. Timber, coal, salt, grain, iron, slates, oilcake, &c.; E. Native wood, potatoes, grain, old iron, &c. LV. at ST. 450 reg. ton.; none at LW. Accn. The area of the tidal basin is about $2\frac{1}{2}$ acres, and the length of quays, including the river side, 650yds. There is cranes and shed accommodation.

Charges.—Berthing fees 1/ vessel. Rates and duties on vessels and boats. Dues on goods. Tay buoys dues (see Dundee Harb. Tay light dues).

Towage.—Dundee to Newburgh $6\frac{1}{2}$ d; Flisk to Newburgh $3\frac{1}{2}$ d; Dundee to Perth $9\frac{1}{2}$ d; Flisk to Perth $7\frac{1}{2}$ d; Lowhead to Perth $6\frac{1}{2}$ d; Newburgh to Perth $5\frac{1}{2}$ d; Earmouth to Perth 5d; Elcho to Perth $4\frac{1}{2}$ d; Orchardnock to Perth 4d; Light —Perth to Newburgh 3d reg. ton. Up the river to the new harb., and t on having water up to the shore the same tide, by agreement, and if disappointed, the same as if the vessel was towed to her destination. Light vessels bound to the river pay the same as loaded. Vessels under 50 tons pay at the rate of 50 tons. Foreign vessels 1d extra. The money to be paid as soon as the vessel arrives at her destination.

Officials.—Town Clerk, W. Macleish; Harb. Master, D. Tylor; Prin. Ct. Officer and Reg. of Shipping, H. Christie.

PETERHEAD, Aberdeenshire. Lat. $57^{\circ} 30' N$; long. $1^{\circ} 46' W$. Pop. 11,000. Auth. Harbour Trustees, under Acts 1873, 1876, and Prov. Order 1881. P. NC. THW. f. and c. oh 34m; Sp. rise $11\frac{1}{2}$ ft; N. rise $9\frac{1}{2}$ ft; R. of N. $6\frac{1}{2}$ ft. D. on bar 5ft below LWST. W. prev. and most dangerous from NE. to SE. Ry. G.N. (S). Tr.—I. Timber, lime, bones, manure, salt, flour, coal, &c.; E. Grain, fish, whale oil, &c. LV. at any time

of tide was 621 reg. ton. ; at LWST. 60 tons. Accn. There are three harbours, viz. :—

Name.	Area.	Depth of Water LWST.	Rise of Tide ST.	Quayage.
	acres.	ft.	ft.	ft.
North	9	4	11	2,715
South	6½	6	...	2,240
Port Henry (a boat harbour)	5	...	...	600
Total.....	20½	...	...	5,555

There is a national harb. of refuge now being constructed. There are also the following Graving Docks :—

	Length.	Breadth.	Depth on Sill OHW
	ft.	ft.	ft.
New	190	35	15
Old.....	138	34	12

Charges.—Harb. dues, coastwise 3¼d ton, windbound 1d ton ; foreign 6d ton, windbound 2d. Harbour lights ¼d reg. ton. Lifeboat dues 1/ each vessel per annum.

Pilotage.—Rates.—

	£ s. d.		£ s. d.
Vessels under 40 tons	0 8 6	120 tons and under 160 tons..	1 7 0
40 tons and under 50 tons..	0 11 0	160 " " 200 " ..	1 14 0
50 " " 60 " ..	0 13 0	200 " " 250 " ..	1 18 0
60 " " 70 " ..	0 15 0	250 " " 300 " ..	2 6 0
70 " " 80 " ..	0 17 0	300 " " 350 " ..	2 12 0
80 " " 90 " ..	0 19 0	350 " " 400 " ..	2 16 0
90 " " 100 " ..	1 1 0	400 " " 500 " ..	3 7 0
100 " " 120 " ..	1 3 6	500 " upwards	4 4 0

A reduction of one-third of the amount of these charges is made therefrom in the case of vessels entering the harbour for safety or convenience.

Towage.—Inwards or outwards 2d reg. ton.

Officials.—Clerk to Trust., P. Irvine ; Harb. and Dock Master, G. Birnie ; Ry. Man., R. Moffatt ; Coll. of Shore Dues, A. G. Jaffray ; Coll. of H.M. Cust., E. G. Jeffrey.

Hotels.—"North Eastern," "Royal," and "Laing's."

PETTYCUR.—See Kingholme.

PHILLIP'S HARBOUR, Pentland Frith. D. HWST. 12ft ; HWNT. 8ft.

Official.—Harb. Master, J. Bincks.

PIEL.—See Barrow-in-Furness.

PITTENWEEM, Fifeshire, Firth of Forth. Lat. 56° 13' N ; long. 2° 43' 30" W. **Auth.** Town Council, under old Charter confirmed by Act of Charles I. and the Estates of the Parliament of Scotland, 28th June, 1633 **Accn.** Two basins and an outer harbour ; depth about 10ft HW. dry at LW. **W.** prev. E. and SE.

PLYMOUTH, Devonshire. On Plymouth Sound, between the estuaries of the rivers Plym and Tamar. Lat. 50° 22' N ; long. 4° 9' W. **Pop.** with Devonport and Stonehouse, 140,000. **Auth.** as below. **P.** NC. **THW.** f. and c.

at Breakwater 5h 37m; Sp. rise $15\frac{1}{2}$ ft; N. rise $11\frac{1}{2}$ ft. There is no bar at the entrance; depth in anchorage, average 30ft at L.W. W. prev. S. and SW. Rys. G.W. and L. & S.W. LV. (*G.W. Docks*), 2,616 tons net, 4,021 tons gross at L.W. There are three mercantile harb. at Plymouth, viz.:—*Cattewater*, *Sutton*, and the *G.W. Docks*. *Cattewater Harb.* (Auth. Harb. Commrs.) is formed by the mouth of the river Plym, and has an area of about 200 acres. Anchorage for the largest ships afloat at L.W. There are numerous wet and floating docks entering from this harbour. LV. was of 4,600 tons, LWST. There is about 2,200ft of quayage space around the harb. There are two wharves with 24ft and 22ft at LWST, belonging to Messrs. Burnard & Alger; total length, 660ft; minimum depth, 24ft at LWST. Two hydraulic cranes lifting 30cwt each; height of jib from wharf, 60ft; radius, 33ft; speed of grain discharge, 60 tons per hour. Ample fire-proof warehouses; accommodation for nitrate of soda, grain, guano, &c. L. & S.W. Ry. on wharves. *Sutton Harb.* (Auth. Sutton Harb. Impt. Co.) is entered from Cattewater Harb., about one-third up its entrance on N. side. The entrance to it is between two piers, 80ft apart; depth at HWST. 22ft; the greater part consisting of mud, dries. Area of harbour 27 acres, depth at entrance at LWST. 4ft. It has about 1,200yds. of quayage. W. prev. W. are from SE. to SW.; but the harb., being well sheltered, is at all times free from danger. LV. at H.W., during the past 20 years, range from 900 to 1,400 tons burthen. *Great Western Docks* (Auth. G.W. Ry. Co.), at Mill Bay, consist of an outer basin of 53 acres area, protected by a pier from the E. point of entrance; within this is a pontoon pier. Depth from $2\frac{1}{4}$ to 14 fathoms at HWST, and $1\frac{1}{2}$ to $12\frac{1}{2}$ ft at NT. On the W. side of Mill Bay is a pier 900ft long, alongside which vessels of 24ft dft. can lie afloat. The Inner Basin, or wet dock, has an entrance 80ft wide, is 1,200ft long, 500ft wide, and a depth of 22ft at HWST., 18ft at ONT.; area 13 acres. LV. at LWST., ss. *Tower Hill*, 2,616 tons net, 4,021 gross. There is about 7,000ft of quayage space. W. prev. S. and SW. The Harb. of *Hamoaze* is reserved for H.M. ships. Dry docks, &c., as follows:—

Entered from	Name.	Length.	Breadth.	Depth on Sill OHW.	H. of T. ST.	Owner.
G.W. Wet Dock	G.W. Dock	ft. 450	ft. 80	ft. 18	ft. 15 $\frac{1}{2}$	G.W. Ry. Co.
Do.	Do. Pontoon	300	40	—	15 $\frac{1}{2}$	Do.
Cattewater Harb.	Patent Slip	300	35	—	14	Kelly.
Do.	Q. Anne's Dry Dock	250	50	9	14 $\frac{1}{2}$	Banks.
Sutton Harb. ..	Patent Slip	350	21	—	14	Gent.
Do.	Floating Dry Dock..	144	37	11	—	Shilston.

There is every accn. for shipping.

Charges.—Harb. dues, 1/ vessel for Cobler buoy. Cattewater dues. Rates on goods and vessels. Rates for use of mooring chains 1/ and 2/6 day, according to size. *Sutton Harb.* rates on goods and vessels. *Great Western Docks*, crannage. Weighbridge. Mooring buoys and chains. Special.

Pilotage.—District. To the westward as far as Looe, and

eastward as far as the Start. Rates (per foot dft). From an imaginary line drawn from the Mewstone to Penlee Point:—

	To Cawsand Bay, and vice versa.	To Plymouth Sound and vice versa.	To Cattedwater, and vice versa.	To Sutton Pool, and vice versa.	To Hamoaze, and vice versa.	To Mill Bay, and vice versa.	To Yealm River, and vice versa.	To Salcombe, and vice versa.
	14ft and upwards. Under 14ft.	14ft and upwards. Under 14ft.	14ft and upwards. Under 14ft.	14ft and upwards. Under 14ft.	14ft and upwards. Under 14ft.	14ft and upwards. Under 14ft.	14ft and upwards. Under 14ft.	14ft and upwards. Under 14ft.
A	2/6	2/0	3/0	2/6	5/0	4/0	5/0	4/0
B	2/0	1/6	2/6	2/0	4/0	3/0	4/0	3/0
C	..	..	3/6	2/6	3/6	2/6	3/6	2/6
D	..	..	..	..	3/6	2/6	3/6	2/6
E	..	..	..	..	3/6	2/6	3/6	2/6
F	..	..	..	..	3/6	2/6	3/6	2/6
G	..	..	..	..	3/6	2/6	3/6	2/6

A. On ships boarded or quitted without those limits. B. On ships boarded or quitted within those limits. C. Cawsand Bay. D. Plymouth Sound. E. Cattedwater. F. Sutton Pool. G. Hamoaze.

All ships drawing less than 8ft pay for 8ft. Ships returning by stress of weather, contrary winds, or on account of accident, into ports within the Plymouth district, are subject to half the common pilotage. Distance pilotage:—

If without a Line drawn from the Ram Head to the Mewstone:—	Above one and not ex. Two Leagues	Three Leagues.	Four Leagues.	Five Leagues.	Six Leagues	Seven Leagues.	Eight Leagues.	Nine Leagues.	Ten Leagues.
For vessels of less than 15ft draft...	28/	42/	49/	56/	63/	69/	74/	79/	84/
For vessels of 15ft water and above	42/	63/	70/	77/	84/	95/	105/	116/	126/

Should any ship above 17ft dft. be boarded while the Western Land is open off the Ram Head, by one of the second class pilots, and he runs the ship as far in as either of the buoys on the Panther or Shovel, and is there superseded by one of the first class, he is entitled to one-third of the pilotage. If a master retain or employ a pilot whilst at anchor, the rate for the lay-days is 7/6 a day.

Towage.—Vessels of 250 tons, from Sound to docks £1 10s; 1,000 tons £3; 2,000, £5.

Officials.—*Cattedwater*, Clerk to Commrs., S. Cater; Harb. Master, Capt. T. T. Short; *Sutton*, Clerk to Sutton Harb. Impt. Co., T. Wolferstan; Harb. Mast., Capt. T. T. Short; Coll., W. Warrington; *Great Western Docks*, Supt. at Mill Bay, J. Rooney. Dock Mast., T. Radford; Pier Master, W. Cutcliffe.

Hotels. "Royal," "Duke of Cornwall," "Grand."

POLPERRO, Cornwall. Lat. 50° 19' N; long. 4 31 W. Dry at L.W. High water at f. and c. 5h 20m.

POOLE, Dorset. Lat. 50° 44' N; long. 1° 58' W. **Pop.** 12,310. **Auth.** Mayor, Aldermen, and Burgesses, under Act of Parliament. **P. NC.** THW. 9h 10m, oh 45m; Sp. rise 6½ft; N. rise 4½ft. **D.** 6ft LWST. **W.** prev. E. and S.E.

Rys. L. & S. W. Tr.—I. Corn, timber, iron, hemp, flax, pitch, tar, oil, salt, fish, skins, wines, spirits, &c.; E. Manufactured goods, corn, flour, iron, salt, clay, sanitary pipes, stone, &c. **LV.** 400 tons dead weight. **Accn.** The harbour is a spacious estuary resembling at HW. an inland lake, navigable channels, narrow and intricate, with shifting sands, and should not be attempted without a pilot. Depth LW. 6ft. Quayage space 1,700ft.

Charges.—Dues and port charges. Boomage, according to size, but not exceeding 8/. Goods 3d ton.

Pilotage.—**District.** From Christ Church, inclusive, to St. Alban's Head, and *vice versa*. **Rates** per foot. From Studland Bay to Poole Quay; 3/, from Studland Bay to Brownsea, 2/, from St. Alban's or Christ Church Heads to Poole Quay, 4/, and in proportion from those Heads to Brownsea, &c.; from any place between either of these Heads and Studland Bay to Poole Quay, 3/6, and in proportion to Brownsea, &c.; for any vessel not bound to Poole, for a pilot from sea into Studland Bay to stop there for tide or for shelter, 1/6; any vessel outwards to pay the same rates as above. For any pilot having charge of any ship or vessel lying in Studland Bay, who may remain on board, 7/6 a day for the time he is required to remain, provided such ship or vessel be not afterwards piloted by him into Poole harb. The pilot of any vessel must, if required, provide a boat, with four men, to attend her from Stakes to the Quay, or *vice versa*, to tow her in or out, or to carry out ropes on shore or to the buoys, for which service they shall be paid 10/. Pilots must at all times when required lend their assistance to work any vessel to or from the Quay into or out of the harb., for which they shall be paid as follows, viz.:—For working a vessel to or from the bay, 5/; to or from Brownsea, 3/; and to or from Stakes, 2/ a man, and the same for the boat they attend in; and 4/ day each man if detained on board after the first day. Coasting vessels pay two-thirds of the above rates.

Towage.—Bar to Poole Quay, 3d per ton; to Branksea West, 3d per ton; to Russell Quay, 4d per ton; Poole Quay to Bar, 1d per ton.

Officials.—Ry. Man., — Potter; Harb. Master, W. McFaul; Coll. of Dues, W. Wadham; H.M. Cust., Supt. 2nd Class, W. Browning; Sub-Comms. of Pilotage, Messrs. W. McFaul, W. Browning, R. Aldridge.

Hotels.—"London," "Antelope," "Crown," &c.

PORTAFERRY, Co. Down. At entrance to Strangford Lough.

Auth. Owner, Col. A. Nugent, by grant from the Crown. **Accn.** A small pier harb. dry at LW., accommodating vessels up to 300 tons at HW.

Official.—Harb. Master, P. Conkey.

PORT ALLAN, creek of Port of Perth. **D.** HWST. 13ft; HWNT. 7ft.

Official.—Harb. Master, W. Jackson.

PORT ASCAIG, Island of Islay, Hebrides. **Auth.** Owner, Chas. Morrison, of Islay. **Accn.** A stone pier or quay, 240ft long, used by vessels and steamers drawing up to 9ft. **W.** prev. SE.

PORTBILLY, Cornwall. A fishing harb. on E. side of Padstow Haven. There is a large cavern near this place.

PORT CHARLOTTE, Island of Islay, Hebrides. **Auth.** Owner, Chas. Morrison, of Islay.

A small place used by fishing boats.

PORT DINORNIC (see Carnarvon). Tidal basin 480ft \times 156ft. Quayage 1,060ft; 13ft HWST., 8ft 6in

HWNT. Quayage outside basin 960ft; 14ft HWST., 9ft HWNT. There is a patent slipway.

PORT DYNLLEYN, Carnarvonshire. Lat. $52^{\circ} 55' N$; long. $4^{\circ} 35' W$. **THW.** f. and c. 7h 29m.

A lifeboat station.

PORT EASY, Banffshire, Scotland. 2 miles E. of Buckie. A fishing harb.

PORT EDGAR, Queensferry, Firth of Forth, Scotland. **Auth.** NB. Ry. Co., under their General Powers Act,

1870. Accn. Area 30 acres at LW. D. 8ft LW. Harb. formed by two piers. Used principally by the Co.'s ferry steamer. W. prev. E. and W.

PORT ELLEN, Island of Islay, Hebrides. Lat. $55^{\circ} 37' 10'' N$; long. $6^{\circ} 12' 40'' W$. **Auth.** Owner, John Ramsay, under Statute 9 and 10 Vict. A small harb. used by steamers and trading vessels. W. prev. and most dangerous W. and SW., but storms from NW. are the worst for vessels within the harb.

PORT ERIN, Isle of Man. **Auth.** Commrs. of Isle of Man, under Statute 1872. Harb. protected by a breakwater 900ft long, carried into 35ft LWOST. A LW. landing pier. Length has 12ft alongside at LW. A lifeboat station. W. most dangerous W. (See Isle of Man.)

PORT ERISCA, Island of S. Uist, Hebrides. A good harb. for small vessels.

PORT ERROL, Aberdeenshire. Lat. $57^{\circ} 26' N$; long. $1^{\circ} 50' W$. A small harb., dry at LW. **THW.** f. and c. oh 49m. A lifeboat station.

PORT GLASGOW, River Clyde. Lat. $55^{\circ} 56' 15'' N$; long. $4^{\circ} 14' W$. **Auth.** Trustees under Act 27 and 28 Vict., c. 40. W. prev. NNW. Accn. Area about 16½ acres, with D. of 12ft. Several cranes to 20 tons.

Name.	Length.	HWST.	HWNT.
	ft.	ft.	ft.
East Wharf	500	28	21
E. Side Swing Bridge Wharf	240	10	8
Wet Dock Wharves, 58ft wide entrance	1040	28	21
Waterloo Wharf	250	10	8
Quay Wharf	240	21	19
New Wharf, E. Quay	280	22	20
E. Mid. Harb., 130ft wide entrance	570	14	12
E. Side Mid. Quay	240	23	21
W. Side Mid. Quay	240	18	16
W. Side Mid. Harb.	440	10	8
SS. Steamboat Quay	350	13	11
NS. Steamboat Quay	1000	20	18
Paton's Quay	460	9	7

Official.—Sec., D. A. Maclelland; Harb. Master, W. McNab.

PORT GORDON, Banffshire, Moray Firth. **Auth.** Duke of Richmond and Gordon, under the Port Gordon Harb. Act, 1854. Accn. Area 2 acres. Dry at LWST.,

and 12ft at HWST. **W.** prev. SSW. and most dang. N. and NE. **LV.** 121 tons.

Official.—Aitken, of Fochabers.

PORTHCAWL, Glamorgan, Bristol Channel. Lat. $51^{\circ} 28' N$; long. $3^{\circ} 42' W$. **Auth.** G. W. Ry. Co., under Act 6 Geo. IV., c. 104. **Accn.** Harb. dry at LW.; has an area of $7\frac{1}{2}$ acres, with an entrance about 55ft wide, and quayage of about 2,300ft in length. **D.** 29ft HWST. and 18ft HWNT. The basin, 204ft wide, has an entrance 62ft wide. **D.** 27ft HWST. and 16ft HWNT. The pier or breakwater is about 574ft long, and the inner pier 238ft long. There are ballast cranes, staiths from 150 to 200 tons per hour, and cranes to 20 tons. **W.** prev. and dang. W. and SW. A lifeboat station.

Official.—Sec., J. D. Higgins, Paddington.

PORTHLEVIN, Cornwall, between Coverack Cove and Mount St. Michael. A small harb. about 412ft \times 284ft, with entrance 30ft wide, and quayage about 1000ft in length. Dry at LW. 16ft HWST., and 10ft HWNT. **Auth.** The Porthlevin Dock and Harbour Co., under Act 32 & 33 Vic.

PORTLAND, Dorsetshire. Lat. $50^{\circ} 31' 10'' N$; long. $2^{\circ} 26' 40'' W$. **Auth.** The Admiralty. **Accn.** Harb. is formed by two piers and the celebrated breakwater, 8,500ft long, with opening 400ft wide between pierheads for entrance of shipping. Area: up to LW. line, 2,107 acres; to 2 to 3 fathoms deep, 1,758 acres; to 3 to 5 fathoms deep, 1,590 acres; 5 fathoms and upwards, 1,290 acres. **W.** prev. SW., but greatest damage to breakwater from NE. to E. **THW.** f. and c. 7h 1m. A harbour of refuge for vessels passing down Channel. Merchant vessels anchor westwards of White Obelisks in line. No harb. dues. Coal can be obtained from hulks in roads belonging to Messrs. Collins & Co., Roberts & Co., and Powell Duffryn Coal Co.

Hotels.—"Royal," "Victoria Lodge."

Official.—Queen's Harb. Master, T. Hawkins Smith, R.N., H.M.S. *Hercules*.

PORT LEITHEN, Kincardineshire, near Gridleness. A small harb., dry at LW.

PORT ISAAC, Cornwall. Lat. $50^{\circ} 36' N$; long. $4^{\circ} 48' W$. A small port available for small craft only.

THW. f. and c. 5h 24m. A lifeboat station.

PORTISHEAD.—See Bristol.

PORTKNOCKIE, Banffshire, Scotland. A small harb., dry at LW.

PORT LETHEN, Aberdeenshire. A small harb., dry at LW.

PORT LOGAN, Wigtonshire. **Auth.** Owner, J. McDoual of Logan. The only harb. between the Mull of Galloway and Corsewall Pt. that fishing boats can make for. **Accn.** Area 2 acres. Dry at entrance LW. Harb. is so silted up that there is only accommodation for one or two smacks at present time. **W.** prev. and most dang. SW. Harb. dues at option of proprietor.

PORT McADAM.—See Gatehouse.

PORTMADOC, Carnarvonshire. Lat. $52^{\circ} 53' N$; long. $4^{\circ} 25' W$. No harb. authorities. A small tidal harb. with quays on N. side 3,031ft, and on S. side 1,630ft. **D.**

13ft HW., dry at LW. alongside. Depth in harb. 3ft at LW. and 17ft at HWST. THW. f. and c. 7h 27m.

PORTMAGEE, Valentia Island, Co. Kerry, Ireland.

PORTMAHOMACK, Ross-shire. On Dornock Frith, E. coast of Scotland. A small tidal harb. Auth.

Constituted by Act of Parliament 25 and 26 Vict. c. 105, with a pier 30cft long. Dry at LW.; used by vessels drawing 10ft at HW.

Official.—Factor for Cadbolt, J. Young.

PORTMORE, Island of Colonsay, Hebrides. A safe harb., with a sandy beach, but with numerous off-lying rocks.

PORT MUCK, near Lough Larne, Co. Antrim, Ireland. There is a fishery pier at this place.

PORT MULGRAVE, Yorkshire, between Whitby and Scarborough. Auth. Owners, Palmer's Shipbuilding Co. Used by their vessels for the shipment of ironstone.

PORT NA HAVEN, Island of Islay, Hebrides. A shelter for fishing vessels.

PORT NA LONG, Oronsay, Hebrides. There is a narrow inlet on the W. side two-thirds of a mile long, with a sandy beach, where boats can find ample security.

PORTOBELLO. A pleasant seaport and watering place, 3 miles E. of Edinburgh. Ry. N.B.

PORT ORIEL, Co. Louth, Ireland. There is a fishery pier at this place.

PORT PATRICK, Wigtonshire, Scotland. Lat. $54^{\circ} 50' 20''$ N; long. $5^{\circ} 7' 2''$ W. No harb. authority. Ry.

C. Was formerly a good harb., but is now decayed and fallen into disuse. A lifeboat station. THW. f. and c. 11h 10m.

PORT PENRHYN. (See Bangor.) Lat. $53^{\circ} 13' N$; long. $4^{\circ} 10' W$. Dry at LW. 13ft HWST.

PORT QUIN, N. Coast of Cornwall. A small harbour available for small craft.

PORTREATH, Cornwall. Lat. $50^{\circ} 15' N$; long. $5^{\circ} 17' W$.

Auth. The Trustees of the late A. F. Basset, Esq., of Tehiby, Camborne; leased to the Messrs. Williams Portreath Co., and used by them for importing coals. Accn. A tidal port, dry at LW. No. 1 Dock, 195×105 ft; No. 2 Dock, 279×95 ft; No. 3 Dock, 180×150 ft. En. 26ft wide. D. 17ft HWST.; 10ft HWNT. There are 3 jetties in the docks.

PORTREE, Invernesshire. Raasay Sound, Island of Skye.

Lat. $57^{\circ} 24' N$; long. $6^{\circ} 7' W$. A spacious harb. with good anchorage.

PORTRUSH, Londonderry. Auth. Harb. Board, under Act 7 and 8 Geo IV. A harb. used by coasters. D.

at entrance 10ft LW. A lifeboat station.

PORTSEA.—See Portsmouth.

PORT ST. MARY.—See Isle of Man.

PORT SCALLOMEE, near Cape Wrath, Sutherlandshire. There is a quay at this place in 6ft LW.

PORT SETON, Haddingtonshire, Frith of Forth near Cockenzie. D. HWS. 16ft; HWN. 12ft.

Official.—Clerk to Commrs., R. Ovens.

PORT SKERRA, near Thurso, Caithness. A fishing station between Armadale Port and Sandside Harb.

PORTSMOUTH, Hampshire. Lat. $50^{\circ} 48' N$; long. $1^{\circ} 6' W$.

Pop. 127,989. Auth. Lord Commissioners

of the Admiralty; the Portsmouth Corporation own the *Camber* and *Flathouse* Wharves, under Acts 2 and 3 Vict. c. 72, and 31 and 32 Vict. c. 128. **THW.** Dockyard 11h 41m; Sp. rise 12½ ft; N. rise 10ft. D. of water ST. 30ft; N. 17½ ft. W. prev. SW.; most dangerous S. **Rys.** L. & S.W. and L.B. & S.C. **Tr.**—L. Timber, coal, grain, guano, and Government stores; E. Government stores, grain, &c. **LV.** 1,350 tons. **Accn.** Portsmouth is the chief naval station of England. The Royal Dockyard covers an area of 500 acres. **En.** to harb. about ½ mile wide, and extends several miles N., between the W. side of Portsea Island and the mainland, gradually widening out until near the northern shore it is about 3 miles. Harbour affords ample accn. for the largest man-of-war. Crane power, two 10 tons and one 5 tons. Shear legs 30 tons.

	Length.	Breadth	Depth of Water o'er Blocks	
	ft.	ft.	ft. OST.	ft. ONT.
Camber Dry Dock	349½	of Caisson 70 " Entrance 50	17½	14

	Length.	Breadth.	H. of T.	
			ST.	NT.
Corporation Graving Dock ..	349	50	17½	14
Camber Heaving up Slip ...	500	30	12	9
Crampton's Patent Slip No. 1	112	22	8	4
" " " " 2	70	23	8	4

Charges.—Harb. dues according to size. Tonnage dues 2d 3d, and 4d. ton.

Pilotage.—District. From the Owers, within and without the Isle of Wight, to Peperell, and *vice versa*, and to and from, and into and out of all ports and places within those limits, excepting those within the Poole and Southampton districts. **Rates:**—

	17ft. and under.		Above 17 and not ex. 20ft.		Upwards of 20ft.	
	Foot. s. d.	Foot. s. d.	Foot. s. d.	Foot. s. d.	Foot. s. d.	Foot. s. d.
From beyond one mile from Needles Point, and <i>vice versa</i> , to Portsmouth Harb. above the Swing Bridge	7	6	9	6	11	6
From beyond one mile from Needles Point, and <i>vice versa</i> , to Portsmouth Harb., below the Swing Bridge, or Langston, or Lyminster Harbs.	7	0	9	0	11	0
From beyond one mile from Needles Point, and <i>vice versa</i> , to Spithead, Motherbank, Stoke's Bay, Cowes Roads, or to a line drawn from the Lepe Buoy to Lee Point	5	6	6	6	7	6
From beyond one mile from Needles Point, and <i>vice versa</i> , to Yarmouth, or Lyminster Roads, for ships anchoring or remaining thereat	2	6	3	0	3	6
From beyond one mile from Needles Point, and <i>vice versa</i> , to St. Helen's	6	6	7	6	8	6
From within one mile of the Needles Point, and <i>vice versa</i> , to Portsmouth Harb., above the Swing Bridge	6	6	7	6	9	6
From within one mile of the Needles Point, and <i>vice versa</i> , to Portsmouth Harb., below the Swing Bridge, or Langston, or Lyminster Harbs.	6	0	7	0	9	0
From within one mile of the Needles Point, and <i>vice versa</i> , to Spithead, Motherbank, Stoke's Bay, Cowes Roads, or to a line drawn from the Lepe Buoy to Lee Point	4	6	5		6	6

	Foot. s. d.	Foot. s. d.	Foot. s. d.
From within one mile of the Needles Point, and <i>vice versa</i> , to Yarmouth or Lymington Roads, for ships anchoring and remaining thereat	2 0	2 6	3 0
From within one mile of the Needles Point, and <i>vice versa</i> , to St. Helen's	5 6	6 6	7 6
From between the Needles Point and Hurst Castle, and <i>vice versa</i> , to Portsmouth Harb., above the Swing Bridge	4 6	5 6	6 6
From between the Needles Point and Hurst Castle, and <i>vice versa</i> , to Portsmouth Harb., below the Swing Bridge, or Langston, or Lymington Harbs.	4 0	5 0	6 0
From between the Needles Point and Hurst Castle, and <i>vice versa</i> , to Spithead, Motherbank, Stoke's Bay, Cowes Roads, or to a line drawn from the Lepe Buoy to Lee Point	2 6	3 6	4 6
From between the Needles Point and Hurst Castle, and <i>vice versa</i> , to Yarmouth or Lymington Roads, for ships anchoring and remaining thereat	1 0	1 6	2 0
From between the Needles Point and Hurst Castle, and <i>vice versa</i> , to St. Helen's	3 6	4 6	5 6
From between Hurst Castle and Newtown Creek, and <i>vice versa</i> , to Portsmouth Harb., above the Swing Bridge	3 6	4 6	5 6
From between Hurst Castle and Newtown Creek, and <i>vice versa</i> , to Portsmouth Harb., below the Swing Bridge, or Langston, or Lymington Harbs.	3 0	4 0	5 0
From between Hurst Castle and Newtown Creek, and <i>vice versa</i> , to Spithead, Motherbank, Stoke's Bay, Cowes Roads, or to a line drawn from the Lepe Buoy to Lee Point	2 6	3 0	3 6
From between Hurst Castle and Newtown Creek, and <i>vice versa</i> , to St. Helen's	2 6	3 6	4 6
From beyond one mile seaward of Bembridge Ledge, and <i>vice versa</i> , to Portsmouth Harb., above the Swing Bridge	7 6	9 6	11 6
From beyond one mile seaward of Bembridge Ledge, and <i>vice versa</i> , to Portsmouth Harb., below the Swing Bridge, or Langston, or Lymington Harbs.	7 0	9 0	11 0
From beyond one mile seaward of Bembridge Ledge, and <i>vice versa</i> , to Spithead, Motherbank, Stoke's Bay, Cowes Roads, or to a line drawn from the Lepe Buoy to Lepe Point	5 6	6 6	7 6
From beyond one mile seaward of Bembridge Ledge, and <i>vice versa</i> , to St. Helen's Roads, for ships anchoring and remaining thereat	2 6	3 0	3 6
From beyond one mile seaward of Bembridge Ledge, and <i>vice versa</i> , to Yarmouth or Lymington Roads	6 6	7 6	8 6
From within one mile seaward of the Bembridge Ledge Buoy, and <i>vice versa</i> , to Portsmouth Harb., above the Swing Bridge	6 6	7 6	9 6
From within one mile seaward of the Bembridge Ledge Buoy, and <i>vice versa</i> , to Portsmouth Harb., below the Swing Bridge, or Langston, or Lymington Harbs.	6 0	7 0	9 0
From within one mile seaward of the Bembridge Ledge Buoy, and <i>vice versa</i> , to Spithead, Motherbank, Stoke's Bay, Cowes Roads, or to a line drawn from the Lepe Buoy to Lee Point	4 6	5 6	6 6
From within one mile seaward of the Bembridge Ledge Buoy, and <i>vice versa</i> , to St. Helen's Roads, for ships anchoring and remaining thereat	2 0	2 6	3 0
From within one mile seaward of the Bembridge Ledge Buoy, and <i>vice versa</i> , to Yarmouth or Lymington Roads	5 6	6 6	7 6
From Spithead, Motherbank, Stoke's Bay, or Cowes Roads, and <i>vice versa</i> , to Portsmouth Harb., above the Swing Bridge	2 6	3 6	4 6
From Spithead, Motherbank, Stoke's Bay, or Cowes Roads, and <i>vice versa</i> , to Portsmouth Harb., below the Swing Bridge, or Langston, or Lymington Harbs.	2 0	3 0	4 0
From Spithead, Motherbank, Stoke's Bay, or Cowes Roads, and <i>vice versa</i> , to St. Helen's, or to a line drawn from the Lepe Buoy to Lee Point	1 6	1 6	1 6
From Cowes Roads, and <i>vice versa</i> , to Cowes Harb.	1 6	1 6	1 6

Ships returning by stress of weather, contrary winds, or on

account of accident, into ports within the Isle of Wight district, pay one-half these rates. A pilot taken on board a vessel outside the Needles Point or Nab Light, is entitled to the following additional pay, viz. : Under 500 tons £1, 500 tons and upwards £2. The pilots of the Isle of Wight district have authority to supersede such of the London or Cinque Port pilots as are licensed for the charge of vessels to the Isle of Wight, when they arrive near the channels leading into the ports and harb. within the Isle of Wight ; but no master of a vessel is compelled to take an Isle of Wight pilot until at St. Helen's, if he be piloted thereto by a duly licensed London or Cinque Ports pilot. The following rates are chargeable for transporting vessels from one berth to another in Portsmouth or Cowes Harbs., but no pilot shall be entitled to claim these in respect of any vessel which he has brought into harb. unless he can prove to the Sub-Commissioners that the vessel could not be placed in her berth for discharging during the tide in which she came in, viz. : Not ex. 200 tons 10/6, ex. 200 and not ex. 300 tons 15/, ex. 300 tons 21/. If a master choose to retain or employ a pilot whilst at anchor, the rate for the lay day is 7/6, not including the day coming in or going out.

Towage.—From Spithead to any of the following places, and *vice versa*, for vessels of 100 reg. tons and upwards:—Camber or Gosport Beach 1½d reg. ton, if towed in and out 2½d ton ; Gosport afloat, Logo, Haslar, Weovil, or any part of the harb. between the Camber and the north course of H.M. Dockyard 1½d reg. ton, if towed in and out 3d ton ; Extension Works, Gas Works, Flathouse Quay, or Hardway 2d reg. ton, if towed in and out 3½d ton ; Fareham 4d reg. ton ; Langston to Brading 6d reg. ton ; Emsworth or Itchenor 6½d reg. ton. Vessels under 100 tons, yachts, and steamers, in tow from or to other places, by special agreement.

Officials.—Harb. and Dock Master, T. Meades ; Coll. of H.M. Cust., C. J. Buchanon.

Hotels. "George," "Dolphin," "Star and Garter."

PORTSOY, Banffshire, Scotland. Auth. Harb. Company, under Act 1882. Accn. Dry at LW. Vessels drawing 11ft enter at HW. Boats are beached by traction engines.

Officials.—Sec, James Young ; Harb. Master, Capt. L. Jack.

PORT TALBOT, Glamorgan, between Porthcawl and Neath. Auth. Owner, C. R. M. Talbot, under Statutes 4 and 5 Wm. IV., c. 13, 6 and 7 Wm. IV., c. 78, and 3 and 4 Vict., c. 71. Accn. Area about 150 acres, a floating dock entered by a lock 300ft long, with a depth of water at the quays and jetties varying from 18 to 15ft. Breakwater 477yds long ; cranes 2 to 4 tons. Harb. about 1½ miles long, by from 240 to 900ft wide, with quay 3000ft and 10 jetties. Entrance lock 44ft wide. Staiths for coal 100 to 150 tons per hour. W. prev. S. to WSW.

Official.—Harb. Master, L. H. Fitzmaurice.

PORT WILLIAM, Wigtonshire. A small port, dry at LW., with 14ft. at HWST.

PORT WRINKLE, Cornwall, near Looe. A small harb., dry at LW.

PORTYNLLAEN. A sub-port of Carnarvon, used by a few small vessels bringing coal.

POULTON, Yorkshire. Lat. $54^{\circ} 4' 20''$ N; long. $0^{\circ} 52' 30''$ W. A small pier harb. with two piers and a wooden jetty.

PRESTON, Lancashire. Quays about 17 miles from outer bar.

Lat. $53^{\circ} 44'$ N; long. $2^{\circ} 45'$ W. Pop. 96,537. Auth. Corporation of Preston, under Ribble Navigation Acts, 1853 and 1883. P. C. THW. 11h 49m; Sp. rise 10ft.; N. rise $4\frac{1}{2}$ ft. D. on bar at LWOST. 5ft. W. prev. SW., most dangerous NW. Rys. L. & N.W., L. & Y., P. & L. Jn. (L. & Y. and L. & N.W.). Tr.—Principally coasting. LV. 500 tons burthen. Accn. The harb. extends from Preston to the sea, a distance at L.W. of ST. of 17 miles, and therefore contains many acres. Lytham half-tide dock is 2 acres, dock at Preston (now out of use) quarter of an acre.

	Length. yds.	Depth at ST. ft.
Southport Pier	1,466	31
Lytham	298	23
St. Anne's-on-the-Sea	390	31

A vessel drawing 12 to 14ft can get up to Preston at ST., and drawing 7 to 8ft at NT. There is a slipway for vessels of 100 tons, and a gridiron 120ft long. Extensive dredging works are being carried on, and there is a great improvement in the depth of water.

Charges.—River dues 5d ton. Harb. light dues 3d ton, payable by vessels once every year.

Officials.—Harb. Master, W. Worden.

PULTENEY AND WICK.—See Wick.

PWLLHELI, Carnarvon. Bay of Cardigan. Lat. $52^{\circ} 51'$ N; long. $4^{\circ} 32'$ W. THW. f. and c. 8h 30m. Rys. The Cambrian and L. & N.W. Auth. Town Council. Accn. Depth at LW. 3ft, and at HWST. 18ft. The harb. is well sheltered by banks, and is rising in importance as a watering place.

Charges.—1½d per ton reg. and ½d per ton on windbound vessels.

Pilotage.—As per agreement

Official.—Harb. Master, John Owen.

Hotels.—“Tower,” “Crown,” “Mdryn Arms,” &c.

QUEENBOROUGH, Kent. Lat. $51^{\circ} 26'$ N; long. $0^{\circ} 45'$ E. Auth. Corporation, under Act 1886.

Accn. Pier and wharves, area of harb extends from Swale Spit on the N to King's Ferry on the S, $3\frac{1}{2}$ nautical miles. Depth varies from 15 to 30ft. LWST. THW. f. and c. 12h 38m, W. prev. SW; but harbour landlocked. Queenboro' Ry. Jetty, LC. & D., under Sittingbourne and Sheerness Ry. Co.'s Act, 1857, and LC. & D. Ry. Co.'s Act, 1866. Used by passenger and cargo steamers plying between Queenboro' and Flushing.

Charges.—8/ on vessel and 2d per ton on cargo.

Officials.—Town Clerk, W. J. Harris; Harb. Master, Thos. Brightman; Secy., J. Morgan, Victoria Station, London; Pier Supt., A. W. Churchward

QUEENSFERRY, NORTH AND SOUTH, Linlithgow, Scotland. A seaport on the Frith of Forth, 8 miles from Edinburgh. Harb. dries at LW., accommodates vessels up to 100 tons at HW. Auth. Town Council of Burgh of Queensferry. The chief importance of the place is derived from the ferry across the Frith of Forth.

Officials.—Town Clerks, R. and P. Miller, Queensferry.
QUEENSTOWN.—See Cork.

QUOILE, co. Down, Ireland. **Auth.** Owner, J. Mulholland, Esq., DL. A small harb. accommodating vessels up to 130 tons. 1ft deep at LW. Upper quay, 10ft HWST., 8ft HWNT.; lower quay, 13ft HWST., 9ft 6in HWNT. W. prev. NW. Crane power to 5 tons.

Charges.—2d per ton reg. on cargo in or out; 3d per ton reg. on cargoes in and out; 2/6 plankage on all vessels. Vessels from foreign parts discharging at Hare Island 3d per ton reg. 3/ for use of beam and scale, none other permitted to be used.

Official.—Harb. Master, M. T. Orr.

Hotel.—"Down Hunt Arms."

RAMELTON. A creek under Port of Donegal. D. HWST. 11ft, HWNT. 7ft.

Official.—Coastguard Officer, W. H. Blight.

RAMSEY.—See Isle of Man.

Hotels.—"Mitre," "Albert."

RAMSGATE, Kent. Lat. $51^{\circ}19'42''$ N; long. $1^{\circ}25'23''$ E. Pop. 22,683. **Auth.** Board of Trade. P. NC. THW. f. and c. 11h 20m; OSp. rise 20ft; N. rise 15ft (increased 2ft with N. winds; much affected by winds). W. prev. S. to W. Rys. L.C. & D. and S.E. Tr.—I. Fish and general merchandise; E. General merchandise. LV. at HWST. 1,000 tons. Fishing smacks, luggers, and other small craft can come in at LWST., but other vessels such as barques, brigs, schooners, and steamers of greater draught wait for increased depth of water. **Accn.** The harb. consists of an outer harb. formed by stone piers extending 437yds into the sea, and enclosing an area of 42 acres, and an inner harb. or basin divided from the outer harb. by a stone cross-wall. **En.** about 208ft wide between pier heads, the depth here is 20ft HW., and 5ft LWST., with 16ft at HWNT. Close to the E. pier end, vessels of 8ft draught may lie afloat or go in and out except at low ebb; depths much influenced by winds. In outer harb. are gullies about 140ft wide, close to and parallel with the piers on which vessels are safely moored alongside each other in tiers, depth from 3ft to 5ft at LW. Vessels load and unload in inner harb., which is 1,520ft long, 500ft wide at centre and 350ft at each end, and has 14 to 10ft of water. E. entrance 29½ft wide; W. 40ft wide. D. on sill of each, 15ft HWST., and 10 to 12ft NT. There is a patent slip 500ft long, 22ft wide, with a depth of 20ft ST., and 15ft NT. Good warehouse and crannage accommodation.

Charges.—Rates on vessels entering harb. 4d and 6d ton. Dues on goods. Crannage. Hawsters.

Pilotage.—See London District.

Towage.—Out clear of the harb., under 25 tons 2/; over 25 and under 50, 5/; over 50 and under 100, 10/; for every additional 100 tons up to 500 tons 5/; 500 and under 600 tons 40/6; 600 tons and upwards 45/; if towed out through Chudd Channel, or to the North Brake Buoy, or an equal distance to the anchorage in Ramsgate Roads, double these rates. To or from beacon off Sandwich Haven, double the above rates. From the harb. to the Downs (with effective ships and in moderate weather), under 200 tons £5; 200 and under 600 tons, for each 100 tons additional £1; 600 tons and upwards £10.

Disabled vessels and ships from the Downs, to and from all other places, as per agreement, or arbitration. From one part of the harb. to another, the next rate below her tonnage. Vessels find their own tow-ropes, but vessels not having any, or having such as cannot be depended upon, and using those belonging to the harb., under 100 tons 10/; 100 and under 300, 15/; for every additional 500 tons 5/ per tide. The steam tugs are available at the above rates only at such times as they are not required for the purposes of the harb., and at the discretion of the harb. master.

Officials.—Harb. Master, Capt. E. Jones; Coll. of H.M. Cust., F. Cook.

Hotels.—"Granville," "Castle," "Royal Oak."

RATHLIN ISLAND, Co. Antrim, Ireland. Lat. $55^{\circ} 18' 10''$ N; long. $6^{\circ} 10' 45''$ W. There is a good harb. at Church Bay, at SW. of island.

RAVERGLASS. A small channel near Whitehaven, near the mouth of the Esk. Small vessels discharge on the beach.

REDBRIDGE. A creek of Port of Southampton. The L. & S.W. Railway have warehouse and crane accommodation at this place.

RENFREW HARBOUR, at the mouth of the Cart, River Clyde. **Auth.** Town Council, under Act 1853. **Accn.** Harb. 660ft \times 70ft wide. **D.** LW. 4ft, HWS. 16ft, HWN. 12ft. A stone quay 220ft long, and a wooden wharf 440ft long, both on the W. side. Used by coasters and steamers when fitting machinery. There is a 30-ton steam crane. **W.** prev. SW. *Renfrew Wharf* belongs to the Glasgow and South Western Ry.; length 345ft, **D.** 10ft LW. Used by Co.'s boats for passengers and goods.

Charges.—Table of Rates forwarded on application.

Officials.—Town Clerk, W. Herron; Harb. Master, D. McKenzie; Sec., J. Moston, Glasgow.

RESTRONGUET, A creek between Truro and Falmouth. **D.** HWST. 13ft, HWNT. 11ft.

Official.—F. J. Williams, G. W. Railway Office, Devoran.

RHYL, Chester. **D.** HWST. 15ft, HWNT. 8ft.

Official.—Harb. Master, J. Wright.

RING, Upper and Lower, Co. Cork, Ireland. *Upper*: A pier belonging to the Grand Jury of Co. Cork. Dry at LW., 12ft at HW. **D.** on bar 10ft. Used by vessels up to 100 tons. *Lower*: A free pier 240ft long with 13ft LW. Used by vessels up to 220 tons.

ROBIN HOODS BAY, Yorkshire. Vessels discharge on beach. **D.** HWST. 15ft, HWNT. 11ft.

ROCHESTER, Kent. On the river Medway. Lat. $51^{\circ} 24' N$; long. $0^{\circ} 29' E$. **Pop.** 21,307. **Auth.** Medway Conservators, under Act, 1881. **P. NC.** Ry. S.E. (Strood) L.C. & D. **Tr.**—J. Coal, corn, timber, and general stores; E Cement and general merchandise. **Accn.** River can be navigated at any time, and when the wind is from any quarter. Gill's Patent Slip 130 \times 28ft. **H.** of T. **ST.** 7ft 11in; **N.** 4ft 8in. Gridiron 100ft long.

Charges.—Harb. and port dues. Coal 5d reg. ton, oats 10d grain or seeds other than oats 7d. Anchorage 2/ each vessel Moorage 2/.

Towage.—By agreement.

Officials.—Clerk to Conservancy Board, R. Prall; Harb. Master, Capt. Wildash; Coll. of Tolls, D. Freeland; Coll. of H.M. Cust., C. Costello.

Hotels.—"Bull," "Royal Crown."

ROCHFORD, Essex. A port attached to Leigh, under the Port of London. Situated on the Roche, 4 miles N. of Southend. D. HWST. 9ft, HWNT. 6ft.

Official.—Cust. Officer, T. H. Barbrook.

ROGERS TOWN PIER, Co. Dublin. On the River Rogers-town, 9 miles N. of Howth. Auth. Owner, T. Carey, of Rush. Used by boats up to 40 tons.

Charges.—Dues 1d per ton.

ROSEHEARTY, Aberdeenshire. Lat. $57^{\circ} 42' N$; long. $2^{\circ} 6' 30'' W$. THW. f. and c. 12h om. Auth. Commrs. under Act 38 and 39 Vict. 1875. There are two harbours, the Western and the Eastern, or Port Rae Harb. The W. pier is 285ft long, carried into 13ft ST.; area of harb. is about 2 acres. Port Rae pier is 600ft long, carried into 10ft at HW. Boats are drawn up by a steam engine. W. prev. from NW. round to E. northerly.

Charges.—4d per ton reg. on all vessels loading or unloading; 2d per ton on vessels windbound.

Pilotage.—3d per ton, with extra for men on piers.

Officials.—Clerk, C. Stevenson; Harb. Master, A. Ritchie.

Hotel.—"Forbes Arms."

ROSS, Co. Cork. A pier in Bantry Bay, under authority of Grand Jury.

Official.—Harb. Const., J. Smyth.

ROSS, NEW.—See New Ross.

ROSSCARBERY, Co. Cork. Roscarbery Bay. Unsuitable for ships, being silted up.

ROSSLARE, Co. Wexford, Ireland. In connection with Wexford and the railway system of Ireland. Auth. Commrs. under Prov. Order, 32 and 33 Vict. c. 61. Accn. Area 6 acres, formed by a pier and breakwater 1,800ft long, carried into a depth of 20ft LWST. D. at entrance 20ft LW., and 26ft at HWST. W. prev. S. and SW., but harb. is well sheltered. Cranes, one 10 ton and one 30 cwt. steam. A lifeboat station. Extension works are being carried on.

Official.—Sec., H. E. Wynne.

ROSTREVOR, Co. Down, Ireland. Carlingford Bay. Auth. Owner, The Hon. A. S. G. Canning. Accn. A pier 120ft long; width 9 to 12ft at HW.; dry at LW. W. prev. WNW.

ROTHESAY, Island of Bute. On NE. coast of island, and affording a good anchorage. Quay 600ft. D. 9 to 14ft LW., and 17 to 22ft HW. Used by vessels drawing 12ft. There is a 4 ton crane.

RUNCORN. On the Mersey. Lat. $53^{\circ} 20' N$; long. $3^{\circ} 16' W$. Pop. 17,000. Auth. *Bridgewater & Old Quay Docks*; *Bridgewater Nav. Co.*; *Weston Point Docks*; *Weaver Trustees*; *Widnes Dock*; *L. & N.W. Ry. Co.*; *Ellesmere Port*; *Shropshire Union Ry. L. & N.W. Westbank Dock*, a small dock belonging to the Trustees of the late John Hutchinson. *Bridgewater Docks*, Manchester Ship Canal Co. Seven wet docks

and a gridiron 150 × 40ft., charge being 20/ for first day, and 15/ for each succeeding day. **D.** Sp. 16ft 6in, and **N.** 10ft. **Charges.** same as Liverpool **Pilotage** same as Liverpool. **Towage:** vessels with cargoes for the docks, towed free. *Weston Point Docks*, three, about 6½ acres. **W.** of **E.** 50ft. **D.** 19ft over sill **HWST.** **W.** prev. Westerly. These docks can only be entered at **HW.** **LV.** 300 tons. **Charges** 4d per ton dockage rates. *Widnes Dock* about 1½ acre. **W.** of **E.** 22ft. **D.** 12ft **ST.** **LV.** 180 tons. No vessels enter at **LW.** *Ellesmere Port Docks* about 3½ acres. **W.** of **E.** 33ft. **D.** about 14ft. Patent slip for vessels of 300 tons.

Charges.—Harbour dues, 1½d to 1¾d, dockage 4d per ton.

Towage.—Vessels loaded with cargoes for docks, free.

Officials.—*Bridgewater*, Agent, John Meadowcroft; Dock Master, W. Garnett; *Weston Point*, Gen. Man. Weaver Trust., T. B. Hughes; *Widnes*, Gen. Man. L. & N.W. Ry., G. Findlay; *Ellesmere Port*, Coll. of H.M. Cust., F. Samons.

Hotel.—"Royal."

RUSH, Co. Dublin. A tidal harb., with a pier with return end 110yds long. **Auth.** Owner, Sir R. Palmer. **D.** 10 to 14ft **HW.** **LV.** 120 tons coal laden.

RYDE, Isle of Wight. Lat. 50° 44' 25" N; long. 1° 9' 20" W. A railway pier, 788yds long, carried out to 10ft **LWST.** **Auth.** The Ryde Pier Co. **W.** prev. SE.

RYE, Sussex. Situated on the Rother. Lat. 50° 8' N; long. 0° 7' 44" E. **THW.** f. and c. 11h 20m. **D.** at **LWST.** is about 2ft, and 18ft at **HWST.** Nearly all the works connected with the port are in fair condition; the entrance, formerly blocked up by sand, is now decidedly better. **W.** prev. and most dangerous S. to W. The largest vessels entering have been 13ft dft. **Auth.** Harb. Commrs., executing the office of the Lord High Admiral, under Statutes 1 Wm. IV, c. 135, and 3 Wm. IV., c. 67. A lifeboat station.

Charges.—8d per ton reg.; ships seeking refuge 2/6 per mooring post.

Officials.—Clerk, Wm. Dawes; Harb. Master, Wm. Geo. Rubie.

Hotels.—"George" and "Cinque Port Arms."

ST. AGNES.—See Scilly.

ST. ANDREWS, Fifeshire. Lat. 56° 20' N; long. 2° 47' W. 39 miles NE. of Edinburgh. **Ry.** N.B.

THW. f. and c. 2h 20m. **Auth.** Town Council. **Accn.** Outer harb. 228ft × 300ft has an entrance 60ft wide, and the inner harb. 560 × 134 has an entrance 29'6 wide. **En.** dries at **LW.** and **D.** at **HW.** is about 13ft in the Lower Harb. and 11ft in the Upper Harb. Vessels of 400 tons enter at **HWST.** **W.** most dang. NE. to SE.

Charges.—2d per ton reg.

Pilotage.—Coastwise 3d per ton reg. in and out. Foreign 5d per ton in and out.

Officials.—Town Clerk, S. Grace, Esq. Harb. Master, James Deas.

Hotels.—"Cross Keys," "Royal Hotel," "Alexandra,"

"Marine," "St. Regulus," and "Imperial."

ST. AUBINS.—See Channel Islands.

ST. DAVID'S, Fifeshire. Frith of Forth. **Auth.** Trustees of the late G. W. Henderson. **Accn.** A small harb.

used by vessels of light draught entering from half flood. **W.** prev. N.

Charges.—Dues 1d per ton.

ST. HELEN'S, Isle of Wight. A tidal harb. **D.** HWST. 15ft, HWNT. 11ft. 10 ton crane.

Official.—Rec. and Man., F. M. Coldwells.

ST. HELEN'S POOL.—See Scilly.

ST. HELIER.—See Channel Islands.

ST. IVES, Cornwall. Lat. $50^{\circ} 12' N$; long. $5^{\circ} 28' W$. **Auth.** Corporation, under Acts 1853, 1862, and 1886, and order of 1888. **THW.** f. and c. 5h 0m. **Accn.** Harb. protected by a breakwater 500ft long. Area sheltered is about $5\frac{1}{2}$ acres. Dry at LWST. Vessels of 400 tons enter at HW. **D.** at HWST 18ft at pierhead. **W.** prev. S to W. and most dang. NNE. to E.

Officials.—Harb. Master, S. Barber.

Hotels.—"Tregenna Castle," "Western," "Queen's," and "White Hart."

The stone pier is being extended 280ft true south from the seaward end.

ST. JUST POOL. A creek under Port of Falmouth.

Charges.—Same rates.

ST. MARGARET'S HOPE, Orkneys. A creek under Kirkwall in the I. of S. Ronaldsha.

ST. MARTIN'S.—See Scilly.

ST. MARY'S.—See Scilly.

ST. MAWES, Cornwall. Lat. $50^{\circ} 9' N$; long. $5^{\circ} 0' W$. **Auth.** Pier and Harb. Co., under Act 17 and 18 Vic. **Accn.** 9 to 14ft LWST, but there is only 1ft at LW at pier head. **LV.** 300 tons. **THW.** 5h 7m.

ST. MICHAEL'S MOUNT, Cornwall. A granite rock in Mount's Bay. Harb. dries at LW. **D.** at HWST 15ft. **W.** prev. W., most dang. SSE. to WSW. **Auth.** Owner, Sir John St. Aubyn.

ST. MONANCE, or St. Monans, Fifeshire. Frith of Forth. Lat. $56^{\circ} 12' 30'' N$; long. $3^{\circ} 46' 15'' W$. **Auth.** Corporation, in virtue of a Feu Charter by Wm. Sandelandis, of St. Monance, dated 28 Oct., 1622, and Sasine thereon of the same date, and recorded in the General Register of Sasines 30 Oct., 1622. A small harb. used principally by fishing boats, dry at LW. **W.** prev. and most dang. E and SE.

ST. PETER'S PORT.—See Channel Islands.

ST. SAMPSONS.—See Channel Islands.

SALCOMBE, Devonshire. Lat. $50^{\circ} 13' N$; long. $3^{\circ} 46' W$. **Ry.** G.W. in course of construction. **Auth.** Commissioners, by lease from Duchy of Cornwall for 21 years from June 1882. **Accn.** 11ft on bar LWNT and 6ft at LWST, 19ft at HWNT, and 24ft at HWST. **W.** most dang. SE., S. and SW. **THW.** f. and c. 5h 41m. Ample quayage both at Salcombe and at Kingsbridge, 4 miles up the estuary. A lifeboat station. Steamers carrying passengers and cargo twice a week to Plymouth.

Charges.—None.

Official.—Harb. Master, Wm. Cook.

Hotel.—"Marine."

SALTCOATS, Ayrshire. On the Clyde. **Ry.** G. and S. W. **Tr.** Export trade in coals and salt.

SALTURNS WHARF, Dorsetshire. A wharf in Pool Harb.

SALTFLEET, Lincolnshire. 33 miles NE. of Lincoln. A place much decayed. Dry at LW. **W.** prev. NNW. to SE. **THW.** f. and c. 5h 45m. A lifeboat station.

SANDA, Orkneys, in Sanda Island. **Auth.** Orkneys Steam Nav. Co., under Prov. Order. **Accn.** A stone pier, 200ft long, carried out to 6ft LWST. **W.** prev. SE., most dang. SW.

SANDHAVEN, Aberdeenshire. 2 miles from Fraserburgh. **Auth.** The Hon. J. Forbes Trefusis, under Prov. Orders of 1873 and 1881. **Accn.** Area 14 acres. **D.** at entrance 3 to 11ft, according to tide.

SANSEND. A creek under the Port of Whitby

SANDSIDE HARBOUR, W of Thurso, Caithness. A small harb. with two good piers. Dry at LW.

SANDWICH, Kent. 11 miles E. of Canterbury. **Auth.** Corporation, under Act 1847. Harb. is much choked, and has lost its importance. The channel is narrow and tortuous, and only available for vessels of 12ft. draught. **W.** most dang. SE., S. and W. In Saxon times this was the most important port in England.

SAUNDERSFOOT, Pembrokeshire. Lat. $51^{\circ} 43' N$; long. $4^{\circ} 42' W$. **Ry.** Pembroke and Tenby. **Auth.** Owner, C. R. Vickerman, Esq., of Hean Castle, under Act 10 Geo. IV., c. 108. **Accn.** A small tidal harb. used by coasters up to 400 tons, and having a depth of 17ft at HWST. and 10ft at HWNT. Good quayage, with 3-ton crane.

Charges.—Harb. dues 2d per ton reg.

Pilotage.—As per agreement, about 10/ per 100 tons.

Official.—Harb. Master, E. J. Harvey.

Hotel.—"Hean Castle."

SCALLOWAY. A creek under Port of Lerwick, W. coast Scotland. **D.** HWST. 24ft; HWNT. 17ft.

Official.—Coll., O. Jamieson.

SCARBORO', Yorkshire. Lat. $54^{\circ} 18' N$; long $0^{\circ} 25' W$. **Pop.** 30,504. **Auth.** Harb. Commissioners, under Acts 1843 and 1876. **P. NC.** THW. f. and c. 4h 11m; Sp. rise 15ft; N. rise 9ft; R. of N. $8\frac{1}{2}$ ft. **D.** Entrance dry at ST. **W.** prev. SW.; most dangerous SE. to E. **Ry.** N.E. **Tr.**—I. Timber and ice. **LV.** ss. 715 reg. tons; dft. of largest sailing vessel $15\frac{1}{2}$ ft. **Accn.** The harb. is formed by the E. Old or Vincent and W. piers enclosing two independent harb., the outer of $5\frac{1}{2}$ acres, the inner of 9 acres. The bottom throughout is fine sand. Both harb. are dry at LW. At ST. there is about 18ft of water. Vessels of 12ft dft. can enter and be berthed during ST., and those of 9ft during NT. **En.**—Outer Harb., boom entrance NE. $\frac{3}{4}$ E., 33ft wide, bridge entrance E. by S. $\frac{3}{4}$ S., 33ft wide; Inner Harb., NE. $\frac{3}{4}$ N., 100ft wide. There is also a floating dock 90ft long, $33\frac{1}{2}$ ft wide, with 13ft ST., and 8ft NT. Both harbours are dry at LW., and vessels should not charter for this port unless prepared to take the ground whether at a quay, berth, or other.

Charges.—Harb. dues under 50 tons 2d per ton, over 50 tons 3d per ton. Dues on coal landed 6d ton. Corporation dues 1/6 each vessel. Coal delivered $7\frac{1}{2}$ d ton. Vessels in ballast sheltering 1d per ton.

Pilotage.—District not defined. **Rates** as per agreement. No fixed rate. Usual charge 10/ to £1 10s, according to size.

Towage.—1/ per keel.

Officials.—Clerk to Commrs., J. Stephenson; Harb. Master, W. Shaw; Coll. of H.M. Cust., J. M. Cumberland.

Hotels.—"Queen's," "Royal," "Grand," "Castle," &c.

SCHULL, Co. Cork. See Skibbereen. 8 miles NE. from Fastnet Rock. A safe harb., sheltered from SW. to SE. Anchorage is from 18ft to 21ft.

Official.—Harb. Const., D. W. O'Regan.

SCILLY. A group of islands 24 miles WSW. of Land's End.

Lat. $49^{\circ} 51'$ and $50^{\circ} N$; long. between $6^{\circ} 11'$ and $6^{\circ} 30' W$. Pop. 2,000. P. NC. THW. f. and c. 4h 30m; Sp. rise 16ft; N. rise 12ft; Equinoctial tides rise 20ft. D. LWST. 15 to 30ft; LWM. 18ft to 33ft. Tr.—I. Timber, coals, flour, bread, and general merchandise; E. Potatoes and lobsters. Accn. The Scilly Islands consist of 48 islands, but of these only five, viz.:—*St. Mary's*, *St. Agnes*, *St. Martin's*, *Tresco*, and *Bryer* are inhabited. These five islands possess several harb. for vessels capable of taking the ground, and also one for ships of large dft., viz., *St. Mary's Road*. This harb. affords shelter from all winds, except those from the westward between WNW. and SW. The anchorage here is between the island of *St. Mary* and that of *Samson*, and has five entrances. The general depths are from 6 to 13 fathoms. The other harb. of note are *Old and New Grimsby* and *St. Helen's Pool*.

Charges.—Anchor dues $2/4$ per vessel. Keelage 1d per ton.

Pilotage.—District. To and from, into and out of, all ports and places in and about the islands of Scilly. **Rates.** On vessels from or bound to Foreign Ports of 60 tons and under, £2 2s; 70 tons, £2 4s 6d; 80, £2 7s; 90, £2 9s 6d; 100, £2 12s 6d; 110, £2 15s 10d; 120, £2 19s 2d; 130, £3 2s 6d; 140, £3 5s 10d; 150, £3 9s 2d; 160, £3 12s 6d; 170, £3 15s 10d; 180, £3 19s 2d; 190, £4 2s 6d; 200, £4 4s; 210, £4 7s 4d; 220, £4 10s 8d; 230, £4 14s; 240, £4 17s 4d; 250, £5 0s 8d; 260, £5 4s; 270, £5 7s 4d; 280, £5 10s 8d; 290, £5 14s; 300, £5 15s 6d; 310, £5 16s 6d; 320, £5 17s 6d; 330, £5 18s 6d; 340, £5 19s 6d; 350, £6 0s 6d; 360, £6 1s 6d; 370, £6 2s 6d; 380, £6 3s 6d; 390, £6 4s 6d; 400, £6 6s; 410, £6 10s; 420, £6 14s; 430, £6 18s; 440, £7 2s; 450, £7 6s; 460, £7 10s; 470, £7 14s; 480, £7 18s; 490, £8 2s; 500, £8 6s; 510, £8 9s; 520, £8 12s; 530, £8 15s; 540, £8 18s; 550, £9 1s; 560, £9 4s; 570, £9 7s; 580, £9 10s; 590, £9 13s; 600, £9 16s; 610, £9 18s 6d; 620, £10 1s; 630, £10 3s 6d; 640, £10 6s; 650, £10 8s 6d; 660, £10 11s; 670, £10 13s 6d; 680, £10 16s; 690, £10 18s 6d; 700, £11 1s; 710, £11 3s; 720, £11 5s; 730, £11 7s; 740, £11 9s; 750, £11 11s; 760, £11 13s; 770, £11 15s; 780, £11 17s; 790, £11 19s; 800, £12 1s; 810, £12 2s 6d; 820, £12 4s; 830, £12 5s 6d; 840, £12 7s; 850, £12 8s 6d; 860, £12 10s; 870, £12 11s 6d; 880, £12 13s; 890, £12 14s 6d; 900, £12 16s; and an additional 1s for every 10 tons above 900. On Coasting Vessels of 60 tons and under £1; 70 tons, £1 2s 6d; 80, £1 5s; 90, £1 7s 6d; 100, £1 10s; 110, £1 12s 6d; 120, £1 15s; 130, £1 17s 6d; 140, £2; 150, £2 2s 6d; 160, £2 5s; 170, £2 7s 6d; 180, £2 10s; 190, £2 11s; 200, £2 12s 6d; 210, £2 15s 10d; 220, £2 19s 2d; 230, £3 2s 6d; 240, £3 5s 10d; 250, £3 9s 2d; 260, £3 12s 6d; 270, £3 15s 10d; 280, £3 19s 2d; 290, £4 2s 6d; 300, £4 4s; and in proportion for a greater tonnage. No charge for less than 5 tons. For 5 tons and upwards, the next rate to be charged. For removing

a vessel within the limits of the port, 10/6. For a pilot remaining on board a vessel by request 10/6 for every 24 hours, or any part thereof. The above rates are for the whole service, in and out, but any pilot employed to conduct a vessel inwards only, is entitled to two-thirds of the said rates, the vessel having been properly moored in one of the regular harbours.

Towage.—£5 per vessel, or 2½d per ton.

Official.—Steward, H. G. Allen.

Hotels.—"Tregarthen's," "Hugh House," "Atlantic," and "Telegraph."

SCRABSTER, Caithness, Thurso Bay. There are 2 piers for steamers drawing from 12ft to 20ft.

Official.—Harb. Master, A. Cormack.

SEAHAM HARBOUR, Durham. A seaport about 6 miles S. of Sunderland. Lat. 54° 50' N; long. 1° 19' W. Pop. 8,000. **Auth.** The Marquis of Londonderry. **P. NC.** **THW.** 3h 24m; **Sp.** rise 15½ft; **N.** rise 11½ft; **R.** of **N.** 6½ft. **D.** Outer harb. **HW.** at **ST.** 15ft. **W.** prev. **E.** and **NE.** **Ry.** Seaham and Sunderland. **Tr.**—I. Pit-wood, staves, hoops, timber, &c.; **E.** Coal principally, chemicals, glass bottles, &c. **LV.** 850 tons burthen. No vessel can enter at **LW.** The **En.** to the harb. is formed by the **E.** and **S.** piers, and is 115ft wide. The harb. **Accn.** is altogether 12 acres, viz. :—

	Area.	Width of entrance.	Depth of water.	
			HWST.	LWST.
	acres.	ft.	ft.	ft.
Outer Harb.	3½	115	15	
North Dock	3	33	17	
South Do.	2½	32	16	
Dry Harb.	3	40	12 to 13	Dries.

The Londonderry slip is 180ft long, 18½ft wide, with 12ft at **ST.** and 6½ft at **NT.**; cradle 78ft long, gridiron attached 180ft long. There is good craning-power of from 5 to 10 tons.

Charges.—Light and harb. dues. Night watch, gas, hospital, Trinity dues, cooking, fresh water, weighing anchors, pier rope, moving vessels in dock, lifeboat.

Pilotage.—See Whitby.

Towage.—See Whitby.

Officials.—Principal Agent for Prop., J. B. Emerson, J.P.; Harb. and Dock Man., W. Sheridan; Ry. Man., G. Hardy.

SEATON-UNDER-LYME, Dorsetshire. No harb. works.

SELBY, Yorkshire. An inland port on the Ouse. Wharves and 4 hand cranes. **D.** **HWST.** 15ft; **HWNT.** 10ft.

Official.—Station Master, J. Bradford Harper.

SHARPNESS, Gloucestershire. On the E. bank of the Severn, 16½ miles from the sea. Lat. 51° 53' N; long. 2° 14' W. Pop. 36,520. **Auth.** Sharpness New Docks, &c., Company. **P. N.C.** **THW.** f. and c. 9h 45m; **Sp.** rise 29ft; **N.** rise 16ft. **W.** prev. There are no prevalent or dangerous winds affecting the entrance to this harbour. **Rys.** G.W. and M. **Tr.**—I. Timber, deals, sleepers, grain, seed, oilcake, marble, bones, potatoes, guano, ores, clay, &c.; **E.** Coal, salt, pitch, iron, manufactures, bricks, earthenware, &c. **LV.** 2,300 tons. **Accn.** There is a tidal basin with an entrance 60ft wide. From this basin

into the canal there is a ship lock 320ft long by 60ft wide; depth on sill 24ft. There are two piers, one 400ft the other 500 ft long, carried to end of foreshore of river. Area of harb., Sharpness 20 acres, Gloucester 14 acres; 4,000ft of quayside space. The above 14 acres accommodation afforded by the new works are an addition to the old docks, and are approached by an entirely new entrance, the old one still remaining and in use. There is also about 16 miles of canal, which affords considerable additional area, and 1 mile of which is constantly used for the purposes of the timber trade. Docks, &c. :—

Name.	Length.	Width of floor.	Width of Entrance.	Depth of water on Sill, OHW.	Remarks.
	ft	ft.	ft. in.	ft. in.	
Sharpness D'ck	350	60	50 0	15 0	Opens into Floating Dock. Do. Do.
Gloucester N'w Dock	165	36	35 8	12 0	
Do. Old	113	31	29 5	10 10	

Crane power to 10 tons at Glo'ster.

Charges.—Rates on vessels entering canal at Sharpness, Foreign and coasting. Regulations as to tonnage, wharfage, lockage, and moorage. Tonnage rates. Dock charges.

Pilotage.—District. The Bristol Channel east of Lundy Island, including the River Severn to the City of Gloucester, and the River Wye to Chepstow Bridge. **Rates:**—

	Under 100 Tons.	100 and under 200.	200 and under 300.	300 and under 400.	400 and under 500.	500 and under 600.	600 and under 800.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
From Lundy to the Holmes or Cardiff Roads, and <i>vice versa</i>	1 10 0	2 0 0	2 7 6	2 15 0	3 5 0	3 15 0	4 5 0
From Lundy to Kingroad, and <i>vice versa</i>	2 0 0	2 10 0	3 0 0	3 10 0	4 2 6	4 15 0	5 7 6
From Lundy to Sharpness, and <i>vice versa</i>	4 0 0	5 0 0	6 0 0	7 0 0	8 5 0	9 10 0	10 15 0
From Nash Point or Minehead to the Holmes or Cardiff Roads, and <i>vice versa</i>	1 0 0	1 5 0	1 10 0	1 15 0	2 2 6	2 10 0	2 17 0
From Nash Point or Minehead to Kingroad, and <i>vice versa</i>	1 10 0	1 15 0	2 2 6	2 10 0	3 0 0	3 10 0	4 0 0
From Nash Point or Minehead to Sharpness, and <i>vice versa</i>	3 10 0	4 5 0	5 2 6	6 0 0	7 2 6	8 5 0	9 7 6
From the Holmes or Cardiff Roads to Kingroad, and <i>vice versa</i>	0 10 0	0 12 0	0 15 0	0 17 6	1 2 6	1 7 6	1 12 6
From the Holmes or Cardiff Roads to Sharpness, and <i>vice versa</i>	2 10 0	3 2 6	3 15 0	4 7 6	5 5 0	6 2 6	7 0 0
Kingroad to Sharpness.	3 0 0	2 10 0	3 0 0	3 10 0	4 2 6	4 15 0	5 7 9

	800 and under 1,000.	1,000 and under 1,200.	1,200 and under 1,400.	1,400 and under 1,600.	1,600 and under 1,800.	1,800 and above.
From Lundy to the Holmes or Cardiff Roads, and <i>vice versa</i> ..	£ s. d. 5 0 0	£ s. d. 5 15 0	£ s. d. 6 10 0	£ s. d. 7 5 0	£ s. d. 8 0 0	£ s. d. 8 15 0
From Lundy to King- road, and <i>vice versa</i> ..	6 5 0	7 5 0	8 5 0	9 5 0	10 5 0	11 5 0
From Lundy to Sharp- ness, and <i>vice versa</i> ..	12 10 0	14 10 0	16 10 0	18 10 0	20 10 0	22 10 0
From Nash Point or Minehead to the Holmes or Cardiff Roads, and <i>vice versa</i> ..	3 7 6	3 17 6	4 7 6	4 17 6	5 7 6	5 17 6
From Nash Point or Minehead to Kingroad, and <i>vice versa</i>	4 12 6	5 7 6	6 2 6	6 17 6	7 12 6	8 7 6
From Nash Point or Minehead to Sharpness, and <i>vice versa</i>	10 17 6	12 12 6	14 7 6	16 2 6	17 17 6	19 12 6
From the Holmes or Car- diff Roads to Kingroad, and <i>vice versa</i>	1 17 6	2 2 6	2 7 6	2 12 6	3 17 6	3 2 6
From the Holmes or Car- diff Roads to Sharpness, and <i>vice versa</i>	8 2 6	9 7 6	10 12 6	11 17 6	12 2 6	14 7 6
Kingroad to Sharpness— 80 and under 100.....	6 5 0	7 5 0	8 5 0	9 5 0	10 5 0	11 5 0

In lieu of the rates charged in the above schedule the following reduced rates shall be paid from Kingroad to Sharpness or Lydney for all vessels coming light *bond fide* for coal, and for all such vessels laden with coal from Sharpness or Lydney to Kingroad:—

	£ s. d.
Under 40 tons	0 13 0
40 tons and under 60 tons	0 15 0
60 " " 80 "	0 18 0
80 " " 100 "	1 0 0
100 " " 120 "	1 2 0
120 " " 150 "	1 4 0
150 " " 180 "	1 6 0
180 " " 200 "	1 8 0
200 " " 300 "	2 0 0
300 " " 400 "	2 10 0
400 " " 500 "	3 2 6
500 " " 600 "	3 15 6
600 " " 800 "	4 7 6
800 " " 1,000 "	5 5 0
1,000 " " 1,200 "	6 5 0
1,200 " " 1,400 "	7 5 0
1,400 " " 1,600 "	8 5 0
1,600 " " 1,800 "	9 5 0
1,800 and upwards	10 5 0

For pilots taken on board of any vessel inward bound to the westward of Ilfracombe, the same pilotage rates as from Lundy Island; if between the Nash Point and Ilfracombe, the same rates as from the Nash Point; if between the Nash Point and the Holmes, the same rates as from the Nash Point; and if between the Holmes and Kingroad, the same rates as from the Holmes. For pilots discharged from any vessel on the outward voyage between any of the stages mentioned in the above rates, the same rates as if they had been taken to the next stage beyond the place where they were discharged. For all vessels piloted to Chepstow or to Lydney, the same pilotage rates as to Sharpness, and *vice versa*. For vessels piloted from Sharpness to Lydney, or from Lydney to Sharpness, and then to

Kingroad, the same rates as between Sharpness and Kingroad. Vessels ordered to wait for any pilot in the river Severn above Sharpness, one-fourth more than the rates between Sharpness and Kingroad. All vessels bound to Liviney or Sharpness, or to any place in the river Severn above Sharpness, requiring and having the services of a pilot, shall also employ on board as assistants to the pilot from Kingroad, the following number of men, at the aforementioned charges.—All vessels of 200 and under 300 tons, 2 men at 7/6 for the first tide, and 1/6 for every other tide for vessel crews; 300 and under 400 tons, 3 ditto; 400 and under 500 tons, 4 ditto; 500 and upwards, 5 ditto. With lighted crews, 300 and under 400 tons, 2 men at 7/6 for the first tide, and 1/6 for every other tide the vessel moves; 400 and under 500, 3 ditto; 500 and upwards, 4 ditto. Any pilot who remains on any vessel by request after he has discharged the duties for which he was engaged, shall be paid for a day or part of a day; and any pilot who shall be required to move any vessel in the dock, wharf, or river, occupying only one tide, shall be paid for any vessel under 300 tons, 7/-; 300 and under 400, 7/6; 400 and under 500, 8/-; 500 and upwards 9/-d. Any pilot who shall be retained by request on any vessel in Kingroad, waiting for water up the river Severn, or outward bound in any direction on account of contrary winds, longer than 24 hours, shall be paid for a day for each day's detention, in addition to the pilotage rates. In case any vessel shall be compelled to lie up and return from the westward on account of weather or accident, the pilot in charge shall be entitled to a fourth of the pilotage charge in addition, according to the distance that vessel may have reached before she shall put back. In addition to the foregoing charges, a clerk or collector's fee shall be payable as follows:—All vessels under 200 tons 6d.; 200 and under 300 tons 1/-; 300 and under 400 tons 1/6; 400 and under 500 tons 2/-; 500 and upwards 2/6.

Pirages.—For the gross length of the canal: under 30 tons 1/-; 30 to 150 tons 2/-; 150 tons and over, 15/- tons 4/-; above 150 tons 1/- for the remainder 2/-d ton each way.

Officials.—See Lock and Canal Co., H. Waddy; Harb. and River Master and Lloyd's Agent, Capt. D. Farrant, R.N.; Harb. Master and Lloyd's Agent (Sharpness), Capt. Calway; Coll. of H.M. Customs, G. T. Lutton.

Hotels.—At Gloucester, "The Albion;" at Sharpness, "Pearce's Railway."

SHEERNESS, Kent. Lat. 51° 26' 48" N; long. 0° 44' 25" E.

A seaport and naval station situated on the Island of Sheppey at the mouth of the Medway, 11m NE. from Chatham. Ry. LC. & D. The important government dockyard at this place has an area of about 60 acres.

Hotels.—"Royal," "Royal Fountain."

SHETLAND ISLANDS, situated about 50m NE. of the Orkney Islands, and 210m from Bergen in Norway. Sandborough Head, the S promontory of the principal island, Mainland or Pomona, is in lat. 50° 49' N.; and the most northern point of Unst, the most remote of the group, is in lat. 60° 51'. The islands are about 30 in number, the principal being: Mainland or Pomona, Vell, Unst, Whaboy, Bressa, East Burra, West Burra, Tronda, Felat, Papa Stour, Mackie Roa,

Housa, Mousa, and Fair Isle. Area about 558 square miles. The climate is wet and tempestuous, and the ports difficult of access.

SHIELDS, SOUTH (see North Shields and Newcastle), situated on the Tyne opposite N. Shields. Ry. NE. The Corporation Quay is 210ft. long, with D. 17ft HW., and dry at LW.; 11 dry and 2 floating docks. Portable steam ballast crane and a 10 cwt. hand crane. A lifeboat station.

SHOREHAM. Lat. 50° 49' 50" N; long. 0° 15' W. Pop. 3,750. Auth. Shoreham Harbour Trustees, under Acts of Parliament of 1816—1876 P. SC. THW. f. and c. in harb., 11h 20m; Sp. rise 16ft and N. rise 11ft above zero. There is generally a depth of 5ft below zero. W. prev. from SW., most dangerous SE. when blowing a gale. Ry. L.B. & S.C. Tr.—I. and E. General. LV. sailing vessel 1,422 tons, draught 16ft. Accn. The harbour is 4 miles long, and is formed by the outset of the river Adur between two piers. Width of entrance 176ft. It is divided by a third pier into the E. and W. arms. W. arm.—Depth of water 21ft HWST., 16ft HWNT. ST. range from 14ft to 16ft, NT. from 8ft to 11ft, above zero. Good wharves, chiefly used by colliers and timber-laden ships. E. arm.—21ft at HWST., 16ft at HWNT. From this arm there is a floating canal entered by a lock 175ft long, 32ft wide, with depth of water at HWST. 22½ft, LWST. 6½ft, HWNT. 17ft, and LWNT. 6½ft. Depth of canal 19ft HWST., 14ft HWNT. Vessels drawing 16ft can lie afloat inside the lock. The stream runs as much as 6 knots at Springs, and 3 knots at Neaps. There is in the harbour and under the direction and management of the harb. authority, quay space to the extent of 1,400ft frontage, besides this there are numerous private wharves having frontages to the harb. of about 2,500ft. The Adur slip is 420ft long, 54ft wide, and capable of taking a vessel drawing 11ft forward and 13ft aft. Gridiron, 152ft by 32ft wide.

Charges.—Harb. dues, vessels loading or unloading 3d to 6d ton according to size. Putting in for shelter 4/ each.

Pilotage.—District. From Brighthelmstone (exclusive) westward to the Owers, and from the Owers eastward to Brighthelmstone (exclusive). Rates per foot. Inward and outward. Harb. pilotage, 8s dft. and under, 1/6d, above 8ft and not ex. 10ft, 1/9d; above 10ft, 3/. Vessels inward bound, not boarded until they are within the bar at the entrance of the harb., are charged only one-fourth of these rates. Ships going into Shoreham, and unloading near the harb. mouth, are subject to half-pilotage only; but if such ships are afterwards removed by pilots to any dock or wharf near the town, for the purpose of taking in a cargo, the full pilotage is to be paid.

Towage.—Rates for the use of the steam tugs plying within harb. limits, in and out of the harb. to and from Kingston, Shoreham, or the Lock:—Vessels under 60 tons reg., 12/6; vessels of 60 tons reg. and upwards, 2½d per ton reg.; towage one way (either in or out), one half of the above mentioned rates; up and down the canal, 2d per ton reg.; up or down the canal, 1d per ton reg., with minimum charge of 5/. From the Lock to Kingston or Shoreham, or from Shoreham or Kingston to the Lock:—Vessels under 60 tons reg., 5/; vessels of 60 tons and under 100 tons, 8/; vessels of 100 tons and under 200 tons, 12/; vessels of 200 tons and

upwards, 15/; moving a vessel in harb. other than as above mentioned, 5/; use of tow rope in or out of harb., 10/.

Officials.—Clerk to Harb. Trust., T. Hardy; Coll. of Dues, D. Pilmore; Harb. Master, J. Maynard; Supt. H.M. Cust. W. H. Stewardson.

Hotel.—The "Burrell Arms," "Buckingham Arms."

SIDMOUTH, Devonshire. Lat. $50^{\circ} 40' 30''$ N; long. $3^{\circ} 14'$

W. A small seaport situated at the mouth of the Sid, 13 miles SE. of Exeter. A lifeboat station.

Hotels.—"Knowle," "Royal York."

SILLOTH, Cumberland, on the eastern side of Solway Firth, about 22 miles from Carlisle. **Pop.** 3,000. **Auth.** The North British Ry. Co. **THW.** f. and c. 11h 40m; Sp. rise 26ft.; N. 20ft. **Ry.** N.B. **Accn.** consists of a tidal dock 600ft long by 300ft wide, covering about 4 acres, with a jetty extending 1,000ft towards LW. **En.** 90ft wide. **D.** $4\frac{1}{2}$ ft LWST. The new dock has a water area of 6 acres; length (W. side) 660ft (E. side) 630ft, width 400ft. Entrance to dock 60ft. Depth on sill 24ft HWOST. Six hydraulic cranes, of powers up to 6 tons, and two staiths to load 100 tons per hour each.

Charges.—Buoy and light dues 1d to 3d per ton. Ballast 6d per ton inwards; 1/6 per ton outwards. Dock rates $\frac{1}{4}$ d to 5d per ton.

Pilotage.—**District.** In the English Channel of the Solway Frith between the anchorage ground off the harb. of Maryport and the entrance of Port Silloth, and Annan Water Foot, from the Frith. **Rates** by agreement.

Towage.—Coasting vessels outwards or inwards between the end of jetty and Lee Scar Lighthouse, into or out of dock:—Under 72 reg. tons 3/ each; above 72 reg. tons $\frac{1}{2}$ d ton; vessels bound to or from foreign ports, any reg. tonnage 1d ton. Coasting vessels outwards and inwards, between Lee Scar Lighthouse and Striped Buoy ($2\frac{1}{2}$ miles) into or out of dock:—Under 72 reg. tons 6/ each; above 72 reg. tons 1d ton. Vessels bound to or from foreign ports, any reg. tonnage 2d. Coasting vessels outwards from the dock to the lightship:—Vessels of 72 reg. tons and upwards 2d; or when there is more than one vessel of that tonnage on same tide each 1 $\frac{1}{2}$ d; vessels under 72 reg. tons each 12/; or when more than one vessel under 72 tons same tide 9d. Distances beyond lightship, places not named and foreign-going vessels by agreement.

Officials.—Gen. Man. N.B. Ry., J. Walker; Harb. & Dock Master, G. Mundell; Cust. Officer, A. Parker.

Hotels.—"Queen's," "Solway," "Waverley."

SKATEROW, near Berwick. **D.** HWST, 5ft, dry at LW. **En.** 35ft wide.

SKERRIES, co. Dublin, Ireland. Lat. $53^{\circ} 35' 20''$ N; long. $6^{\circ} 6' 20''$ W. **Ry.** GN. of Ireland. **THW.** f. and c. 11h 0m. **Auth.** The Dublin Port and Docks Board under a Provisional Order and Acts of 1861 and 1877. A small harb. dry at LW., used by vessels of up to 250 tons and drawing 12ft. Quayage 400ft. A lifeboat station.

Officials.—See Dublin.

SKIBBEREEN, co. Cork, Ireland, situated on the Ilen. Lat. $51^{\circ} 34'$ N; long. $9^{\circ} 15'$ W. **No Harb. Auth.** *Nearest station, Dunmanway, on the W. Cork Ry. (16m). A small harb.; the best entrance is through Baltimore Harb. Channel.*

SKIPNESS, Cantire, Argyleshire. **Auth.** Owner R. C. Graham of Skipness. **Accn.** An iron pier with D. of 8ft at LWST.

SKIPPOOL, Lancaster. Creek of Fleetwood. **D.** HWST. 15ft. **HWNT.** 10ft.

SLIGO, Sligo, on the Garvogue, 5 miles from the outer roads.

Lat. 54° 16' N; **long.** 8° 28' W. **Pop.** 10,764. **Auth.** Harbour Commissioners, under Statute 40 Vict. c. 35, 1877. **P. C.** THW. f. and c. 5h 23m; **Sp.** rise 11½ft; **N.** rise 8½ft. **D.** on bar at LW. 15½ft. **W.** prev. SW. **Rys.** Mid., G.W., & S.L. & N. Co. **Tr.**—General. **LV.** Vessels of 1,540 reg. tons and 21½ft dft. have entered the harb. at HW., and vessels of 390 reg. tons and 16ft dft. at LWST. **Accn.** Good and safe channel up to quays. The ballast quay is about 2,000ft long, with a depth of water alongside at LWST. of 8ft. Depth up to quays at ST. 16½ft; **NT.** 13½ft. Hand cranes.

Charges.—Harb. dues 6d ton. Ballast 1s 6d to 2s 6d ton. Mooring buoys if used 3d per ton reg.

Pilotage.—District. From Wheaten Rock to Quays. **Rates.** Outwards: From any place to sea, April 1 to Sept. 30, 2/; Oct. 1 to Mar. 31, 2/6. From April 1 to Sept. 30, Wheaten Rock to Sligo, 2/6 foot inwards; Sligo to sea, 2/ foot outwards. From Oct. 1 to Mar. 31, Wheaten Rock to Sligo, 3/ foot inwards; Sligo to sea 2/6 foot outwards.

Towage.—5d per reg. ton in, and 3d out.

Officials.—Sec. and Coll. of Harb. dues, S. M. Cherry; Harb. Master, Capt. J. Keeble.

Hotels.—"Victoria" and "Imperial."

SOLVA. A small creek near Milford.

SOUTH ALLOA, River Forth, Scotland. A wharf belonging to the Cal. Ry. Co., used for landing coals and timber.

SOUTH BASIN, North Uist. **Lat.** 57° 35' N; **long.** 7° 3' W. A well-sheltered harb., with a pier having 7ft. at LW. alongside.

SOUTHAMPTON, Hampshire. On Southampton Water. **Lat.** 50° 54' N; **long.** 1° 24' W. **Pop.** 80,000.

Southampton Water forms one of the finest harbours in the kingdom, being quite land-locked, and its approaches so protected that no sea of any consequence can rise. The largest ships arrive at and leave the harb. at all times of tide. The anchorage is remarkably good. There is a second high-water about two hours after the first, the knowledge of which is most important to the mariner. The first high-water at the full and change of the moon is at 10h 30m, the second high-water at 12h 45m, and low water at 4h. To ships using the graving docks this double tide is very advantageous, as the water remains nearly stationary for nearly two hours; thus, without risk, allowing vessels to come out of the dock, and others to enter, without losing a tide. **Auth.** The Docks are the property of the Southampton Dock Company; there are also Quays where vessels discharge which are under the jurisdiction of the Southampton Harbour Board, together with piers mostly used by passenger steamers to and from the Isle of Wight, &c. **P. C.** THW. 10h 30m, 0h 45m; **Sp.** rise 13 ft; **N.** rise 9½ft. **D.** at LWST. of 10 acres, 20ft and 16 acres 18ft, 10 acres in close dock 28ft. **W.** prev. SW.; owing to the land-locked nature of the harb. no winds

are specially dangerous. **Ry. L. & S.W. Tr.**—I. Coffee, wine, tobacco, and all kinds of foreign and colonial produce; E. Machinery, hardware, and manufactured goods. **LV.** as follows:—

	Tons.		Tons.
<i>Saale</i>	5,381	<i>Atrato</i>	5,140
<i>Trave</i>	5,381	<i>Dresden</i>	4,500
<i>Pulda</i>	5,121	<i>Rome</i>	5,010
<i>Victoria</i>	6,268	<i>Tartar</i>	4,339
<i>Augusta Victoria</i>	7,642	<i>Werra</i>	5,100
<i>Elms</i>	5,192	<i>Orinoco</i>	4,478

The property under the jurisdiction of the *Southampton Harb. Board* is:—Quay space 101,000 super. ft. There are the following Docks:—

	Area.	Depth.	W. of E.
Open dock	16 acres	18ft LWST.	150ft
" "	"	31ft HWST.	
Close "	10 acres	28ft "	56ft
" "	"	28ft NT.	

Dry docks, &c.:— 26 acres.

	Length.	Width.	Water over blocks.
	ft.	ft.	ft.
No. 1	400	66	21
" 2	250	51	15
" 3	500	80	25
" 4	450	56	25
Northam Iron Works Patent Slip	620	20	16 to 18 ST.* 6 to 8 NT.*
J. Ramson's Slip takes vessels of 200 tons	400	24	6

* Height of Tides.

Every accommodation—warehouses, cranes, &c. Total length of present quay exceeds 7,500ft, in addition to the extension quay 1,820 ft long, with 20ft of water at LT., which forms the E. arm of the new Dock of 18 acres, having a depth of 26ft, in course of construction. Shears to lift 100 tons. Cranes to 20 tons. **LV.** using the *Town Quay* the *Morglay*, 1,525 tons, 21ft dft. Larger vessels go to the docks. Vessels using the *Town Quay* of 13½ft dft. can berth at LW. Some steamers do not go into the docks, but land their passengers, mails, and specie there by tender. The larger portion of the trade at the Quay of the Commissioners is carried on by vessels not exceeding 1,000 tons. The traffic at the Royal Pier is mainly Isle of Wight passenger traffic.

Charges.—Harb. dues 1d ton. Boomage 1/6 to 5/, according to size. Wharfage. The rates at this port have been recently revised, and copy of dues and charges can be had on application to Mr. W. Bowyer, Southampton Harb. Board, Southampton.

Pilotage.—District. From a line drawn from Lepe Buoy to Lee Point, to all ports and places within the Southampton Water, and from all ports and places within the Southampton Water to sea. Rates per foot. From any place within a line drawn from Lepe Buoy to Lee Point to Southampton, Hamble, or Bursledon:—17ft dft. and under, 1/6, above 17ft and not ex. 20ft, 2/6, above 20ft, 3/6; from any place within a line drawn from Lepe Buoy to Lee Point to Eling, Redbridge, Northam, or Chapel, 1/ per foot more than the above rates. If a vessel, inward-bound, be not boarded until she is ENE. of Calshot Castle, the pilot is entitled to one-third

only of the rate. From Southampton to sea:—17ft dft. and under, 6/, above 17ft and not ex. 20ft, 7/, above 20ft, 9/ per foot. For removing vessels from one place to another within the Southampton Water, the following rates, viz.:—From Southampton to Redbridge, Eling, Northam, or Chapel, and *vice versa*, 1/; from Southampton to Hamble, Bursledon, Leap, or Buckler's Hard, or Beaulieu, and *vice versa*, 1/6 per foot; and for any intermediate distance a proportionate part of the above rates. If a master choose to retain or employ a pilot while at anchor, the charge for the lay days is 7/6 per day.

Towage.—

Registered Tonnage.	Bursledon Docks or Town Quay.		Chapel.			Northam or Magazine.			Eling or Redbridge.		
	Calshot Castle.	Cadland Beacon.	Calshot Castle.	Cadland Beacon.	Mouth of Creek.	Calshot Castle.	Cadland Beacon.	Mouth of Creek.	Calshot Castle.	Cadland Beacon.	Mouth of Creek.
75	32/	28/	34/	32/	17/	40/	38/	22/	44/	40/	28/
100	34/	30/	36/	34/	18/	42/	40/	24/	46/	42/	30/
125	36/	32/	38/	36/	19/	44/	42/	26/	48/	44/	32/
150	38/	34/	40/	38/	20/	46/	44/	28/	50/	46/	34/
175	43/	40/	47/	43/	23/	54/	51/	32/	58/	54/	40/
200	50/	45/	54/	50/	27/	58/	58/	37/	66/	62/	45/
225	56/	50/	60/	56/	30/	64/	65/	42/	74/	69/	50/
250	62/	56/	67/	62/	33/	71/	72/	46/	82/	76/	56/
275	68/	62/	74/	68/	37/	78/	79/	51/	90/	85/	62/
300	75/	68/	81/	75/	40/	85/	87/	56/	100/	93/	68/
350	80/	74/	87/	80/	46/	92/	95/	61/	106/	100/	—
400	88/	80/	94/	88/	50/	100/	101/	67/	—	—	—

Registered Tonnage.	Hamble.			Mouth of Docks.		Registered Tonnage.	Docks.	
	Calshot Castle.	Cadland Beacon.	Mouth of Creek.	Docks or Town Quay.	Bursledon.		From Nab Light or Needles to	From Spithead to
75	30/	27/	32/	14/	34/	300	160/	130/
100	32/	29/	34/	15/	36/	400	190/	160/
125	34/	31/	36/	16/	38/	500	220/	190/
150	36/	33/	38/	17/	40/	600	260/	220/
175	41/	38/	43/	20/	46/	700	300/	250/
200	48/	45/	50/	23/	52/	800	340/	280/
225	53/	50/	56/	26/	58/	900	380/	320/
250	59/	56/	62/	28/	64/	1,000	420/	360/
275	65/	62/	68/	31/	70/	1,200	460/	440/
300	72/	68/	75/	34/	80/	1,500	500/	440/
350	77/	74/	—	39/	—	—	—	—
400	—	—	—	44/	—	—	—	—

All vessels light or in ballast, 5/ less than the above charges.

RULES.—The Rates are charged on the British Register tonnage, and include the use of one tug boat for towing vessels. A further charge is made for an extra tug boat. Steamers and yachts towed by agreement. Vessels in the foreign trade 1d. per Customs' Register ton more than coasting vessels. Over 300 tons, ½d. If the tonnage is higher than specified in the tables, towage charged on the next higher rate.

Registered Tonnage.	Docks.		Chapel.		Northam or Town Quay.		Eling or Redbridge.	
	To the Ballast Wharves and Mouth of Creek.	To the Ballast Wharves.	To the Ballast Wharves and Mouth of Creek.	To the Ballast Wharves.	To the Ballast Wharves and Mouth of Creek.	To the Ballast Wharves.	To the Ballast Wharves and Mouth of Creek.	To the Ballast Wharves.
75	14/	5/	17/	6/	22/	15/	34/	27/
100	15/	5/	18/	6/	24/	16/	37/	29/
125	16/	5/	19/	6/	26/	17/	40/	31/
150	17/	6/	20/	7/	28/	18/	43/	33/
175	20/	7/	23/	8/	32/	21/	49/	38/
200	23/	8/	27/	9/	37/	25/	55/	45/
225	26/	9/	30/	10/	42/	28/	61/	51/
250	28/	10/	33/	11/	46/	31/	66/	57/
275	31/	11/	37/	12/	51/	34/	72/	63/
300	34/	12/	40/	13/	56/	37/	80/	70/

All vessels to pay this tariff in full.

Registered Tonnage.	Hamble.		Bursledon.		Eling or Redbridge.				
	To the Ballast Wharves and Mouth of Creek.	To the Ballast Wharves.	To the Ballast Wharves and Mouth of Creek.	To the Ballast Wharves.	From Town Quay to	From Magazines to	From Northam to	From Chapel to	From Docks to
75	38/	33/	44/	38/	25/	22/	44/	37/	32/
100	40/	35/	46/	40/	27/	24/	46/	39/	34/
125	42/	37/	48/	42/	29/	26/	48/	41/	36/
150	44/	39/	50/	44/	31/	28/	50/	42/	38/
175	52/	44/	58/	51/	36/	32/	58/	49/	43/
200	59/	51/	66/	58/	42/	37/	66/	56/	50/
225	66/	57/	74/	65/	47/	42/	72/	63/	56/
250	73/	63/	82/	72/	54/	46/	78/	70/	62/
275	81/	69/	90/	79/	57/	51/	84/	77/	68/
300	87/	75/	100/	87/	62/	56/	90/	83/	75/

All vessels to pay this tariff in full.

Light or in ballast, 5/ less.

Officials.—*Southampton Dock Company*, Sec. and Supt., P. Hedger; *Harb. Board*, Clerk and Coll., A. H. Skelton; *Harb. Master*, W. Burbidge; *Wharfinger*, W. Bowyer; *Coll. of H.M. Cust.*, R. Henderson; *Lloyd's Agent*, J. E. LeFevre; *Lloyd's Survs.*, L. Sinnette and J. B. Stevens.

Hotels.—"South Western," "Radley's," "Dolphin," "Royal," "Star," &c.

SOUTHEAD, Essex. River Thames. Pier $1\frac{1}{4}$ miles long. D. 9ft HW.

Official.—*Harb. Master*, W. Chingnall.

SOUTHSEA.—See Portsmouth.

Hotels.—"Royal Pier," "Castle," &c.

SOUTHWICK.—See Shoreham.

SOUTHWOLD, Suffolk. Lat. $52^{\circ} 20' N$; long. $1^{\circ} 39' E$. Situated at the mouth of the Blythe, 28m NE. of Ipswich. **Auth.** Commissioners under Acts of Parliament 20 and 30 Geo. II.; 29 and 49 Geo. III.; and an Act of 1830. **Ry.** Southwold Ry., nearest station Halesworth, GE. A decaying harb., with dilapidated piers.

Official.—Harb. Master, W. Blowers.

Hotels.—"Centre Cliff," "Swan," and "Crown."

SPALDING, Lincolnshire. Situate on the River Welland, 15m SW. from Clayhole in Boston Deepes. **THW.** f. and c. 7h 30m. **Auth.** The River Welland Outfall Trustees. **D.** of water at Sp., 7ft to 9ft. Vessels up to 60ft in length can swing. **Accn.** Two ship carpenters and slipways.

Charges.—River Welland dues, 9d per ton, on the reg. of the vessel. Coals and road materials 6d per ton; cake manure and other merchandise, 1s per ton.

Pilotage.—Clayhole to Fosdyke Bridge, under 8ft, 1/9 per ft; over 8ft, 2/ per ft; Fosdyke Bridge to Spalding, 1/ per ft.

Officials.—Clerks, Bonner & Calthrop, Solicitors, Spalding; Harb. Master, Joseph Atkin.

Hotels.—"White Hart," "Red Lion."

SPITHEAD.—A roadstead of the English Channel, between Portsmouth and the Isle of Wight, facing Portsmouth Harb. About 10m in length and 4 in breadth, and could hold 1,000 vessels in safety, and is the principal rendezvous of the British navy.

STAIRHAVEN, Ayrshire, Scotland. **Auth.** Owner, Earl of Stair. A small harb. dry at L.W., with 14ft HWST and 8ft at HWNT. Used by coasters.

STARLEYBURN, N. side of Frith of Forth. A small harb., fallen into disuse except for the occasional shipping of stones by a quarry tenant of the proprietor, the Earl of Morton.

STAXIGOL, Caithness, near Wick. There is a stone pier, dry at L.W., at this place.

STIRLING, Stirlingshire, Scotland. Lat. $56^{\circ} 6' N$; long. $3^{\circ} 59' W$, situated at the head of the Frith of Forth. **Rys.** Cal. and N.B. No harb. **auth.** **THW.** f. and c. 3h 52m.

Official.—Harb. Master, W. M. Dickson.

STOCKTON-ON-TEES, Durham. (See also Middlesboro'.)
Lat. $54^{\circ} 34' N$; long. $1^{\circ} 16' W$.

Pop. 41,015. **Auth.** Tees Conservancy Commissioners. **P.** NC. **THW.** 4h 25m; **Sp.** rise 11½ft; **N.** rise 8½ft. **D.** on bar 17½ft; **ST.** 18ft; **NT.** 14ft. Vessels drawing 13 to 15ft have entered at LWST. **W.** Prev. N. and E. and NE. **Ry.** N.E. **Tr.**—A large I. and E. (specially minerals). **LV.** 3,200 tons.

Charges.—Port charges on ships. Light tolls 1d ton, steam and sail. Anchorage dues 2/6 every vessel. Mooring dues ½d ton. River tolls on ships vary from 1½d to 6d ton. Tolls on goods, minerals, &c.

Pilotage.—See Middlesboro'.

Towage.—To or from sea, light, 6d per ton; loaded 7d per ton.

Officials.—Sec. to Commrs., J. H. Amos; Harb. Master, Capt. W. F. Marshall; Coll. of H.M. Cust., J. R. Owen.

Hotels.—"Vane Arms," "Black Boy," &c.

STOCKWITH, Lincolnshire, under Port of Gainsboro'. D. HWS. 13ft ; HWN. 7ft.

Charges.—Dock dues, 5/ per vessel.

STOLFORD BEACH.—See Bridgwater.

STONEHAVEN, Kincardineshire. Lat. 56° 58' N ; long. 2° 12' W. THW. f. and c. 1h 10m. Auth. Harb. Bd. under Act 20th May, 1825, and Prov. Order confirmed by Act 10th Aug. 1882. Harb. nearly dries at LW., with 13ft HWST. and 9ft HWNT., and is used by vessels up to 200 tons. Quayage 350ft.

Charges.—2d per ton inwards or outwards. Cargo 1½d per ton reg. In ballast, ½d per ton. Harbour lights, windbound 1d per ton.

Pilotage.—30 to 50 tons, 5/ ; 50 to 60 tons, 6/ ; 60 to 80 tons, 7/ ; 80 to 100 tons, 9/ ; 100 to 120 tons, 10/.

Officials.—Harb. Master, A. Laing ; Berthing Master, John Duncan.

STORNOWAY, Island of Lewis. Lat. 58° 11' 28" N ; long. 6° 22' 10" W. Pop. 3,200. Auth. Harbour Commissioners, incorporated by Act 28 and 29 Vic. c. 76. P. NC. THW. 6h 46m ; Sp. rise 13½ft ; N. rise 9½ft. D. There is no bar. En. to harb. 8 fathoms. W. prev. SW. Ry. H. (D. & S.) Tr.—I. Timber, salt, tar, coal, cement, bricks, flour, &c. ; E. Herrings, cured cod and ling, fish, eggs, cattle, &c. LV. 2,722 reg. ton. ; largest dft. 25ft. Vessels of 3,800 tons have anchored in the harb. Accn. Stornoway lies in a deep loch or bay on E. coast of Island of Lewis, and has an area of 150 acres of anchorage, sheltered from all winds. General depth of water 18 to 36ft ; a bottom of sand and mud. There are about 600yds of quay wall, and a LW. pier. There is also a patent slip, 140ft long, 24ft wide. H. of T., ST. 9ft ; NT. 5ft. There are several warehouses. Coal hulks moored in outer harbour.

Charges.—Harb. dues 3d ton ; in ballast and not loading cargo 1½d. ton. No dues charged on steamers coaling or windbound.

Pilotage.—District not defined. Rates by agreement.

Towage.—As per agreement.

Officials.—Secs., W. and J. Ross ; Harb. Master, Thomas Morison ; Collector, W. Lees ; Supt. of Cust., W. Callender. **Lloyd's Agent.**—Stornoway is within 20 miles of the Butt of Lewis, at which point a Lloyd's signal station is about to be erected. Telegraphic communication now extends to Barra Head, and to several points of the W. coast of Lewis.

STRANGFORD, Co. Down, Ireland, six miles from Downpatrick. Auth. Owner, Lieut.-Gen. Lord de Ros, under letters patent of 7th Oct., 1514. Harbour is used by vessels of up to 600 tons. D. 11ft LWST., and 3 fathoms on Pladdy Bar at LWST.

Charges.—Quayage 2d per ton reg. Plankage 1/ to 2/6. Ballast 1/ per ton. Anchorage 1/ to 5/.

Pilotage.—Per agreement.

Officials.—Harb. Master, G. Swail.

STRANRAER, Wigtown. Lat. 54° 54' 40" N ; long. 5° 1' 40" W. Pop. 6,342. Auth. Town Council, as Harbour Commissioners, acting under Harbour Act, 1847, and Burgh Harbours Act (Scot.), 1853. THW. (Loch Ryan) 11h 12m ; Sp. rise 11ft ; N. rise 8ft. D. on bar or entrance and in channel, 3ft at LW. W. most dangerous N. and NW. Ry. Cal. (Port Patrick),

and Ayrton and Wigtonshire. **Tr.**—I. Timber, coal, provisions, manure, &c.; E. Agricultural produce. **LV.** about 300 tons. **Accn.** Being a tidal harb. no vessels can enter at **LW.** Stranraer at the head of a loch has two piers extending into the sea, of which the eastern is 800yds long, with a depth of 9ft at **LW.** Extensive and secure anchorage in roadstead.

Charges.—Harbour dues, 50 to 100 tons reg., 3½d ton; 100 to 150 tons, 4½d; 150 to 200 tons, 5d; 200 tons and upwards, 6d. Vessels in ballast 1d ton.

Pilotage.—District not defined. **Rates.** Roadstead to harb. and *vice versa*, 5/ per vessel.

Towage.—None.

Officials.—Town Clerk and Clerk to Commrs., W. Black; Coll. of H.M. Cust., R. Caldwell.

STRANTON, Durham. A small port 2 miles SW. from W. Hartlepool.

STROMNESS, Hoy Sound, Pomona, Orkneys. On SW. coast of the island. A safe harb. with a pier, having 10ft at **LWST.** alongside. **Auth.** Commissioners under the Orkney Piers and Harbours Act, 1872. Used by steamers up to 470 tons. There are two patent slipways. A lifeboat station.

STROOD, Kent, on the Medway, a suburb of Rochester, which see.

STRONTIAN, Loch Sunart, Argyleshire. A small harbour visited by coasting vessels.

SUNDERLAND, Durham. At the mouth of the river Wear.

Lat. 54° 54' N; long. 1° 22' W. **Pop.** 116,548.

Auth. The river Wear Commissioners are Conservators of Port and are the owners of the South docks. The N.E. Ry. Co. own the North dock. Graving docks as below. **THW.** 3h 22m; **Sp.** rise 14½ft; **N.** rise 11ft; **R.** of **N.** 7½ft. **D.** in channel between the docks and the sea, generally, **HWST.** 25½ft; **NT.** 22ft. **Ry.** N.E. **Tr.**—I. Timber, grain, iron ore, &c.; E. Coals and coke, patent fuel, iron, bottles, glass, &c. There are the following Docks:—

	Water Area.			Width of Gateway.	No. of Gates.	Depth of Water on Sills of Sea Gate.	
	a.	r.	p.			HWOST.	HWONT.
R. Wear Com. Dks.	a.	r.	p.	ft.	prs.	ft. in.	ft. in.
N. Tidal Basin	2	3	...	...	2	...	...
N. Half-tide do.	2	2	1	60	...	...	...
Hudson Dk. N.	18	2	16	60	2	25 6	22 0
" S.	14	1	27	60	2	25 6	22 0
Hendon Dk.	11	...	...	60	1	25 6	23 0
Sea Lock, 480ft long, } 90ft wide	1	...	...	65	2	27 0	23 6
South Outlet	28	...	...		
Total	78	1	4	Length. Breadth.			
N.E. Ry. Co.'s Dk. } (Wearmouth, N.) ... }	6	...	...	ft. ft.			
				580 420		20 0	17 0
Total Dock Area...	84	1	4				

There are numerous coal staiths; many iron shipbuilding yards, and marine engineering works. Warehouse accommodation. Timber yards. All connected with railway (N.E. Co.). Steam and hydraulic cranes. Steam shears. Extensive wharfage and quayage space.

Graving Docks, &c. :—

Owner.	Name.	Length.	Breadth.	Width of Entrance.	Depth of Water on Sills.	
					ST.	NT.
R. Wear Com.	No. 1 South ..	ft. 427	ft. 45	ft. 45	ft. 16½	ft. 13
Do.	No. 2 " ..	250	60	60	16½	13
S. P. Austin & Son	Wear	300	60	45	15½	
J. Laing	Deptford	300	42	49½	16	13
Do.	Cornhill	400	40½	43	17½	13½
R. Thompson & Sons	Bridge	320	48	...	15½	11
Strand Slipway Co.	(Slipway)	600	for ships up to 1,200 tons.			

Charges.—Port tonnage dues 1d to 3d ton. Vessels launched 4d ton. Lighthouse dues ½d ton. Refuge dues 1½d ton. Port duty on coal. Anchorage and beaconage 1/2 ship. River watch 1d ton. Port dues on goods.—*South Dock* rates: Tonnage. Through toll on coal and goods carried through docks. Dock watermen, 100 tons 3/ ton; 200 tons 5/6 ton; above 200 tons ½d reg. ton. in addition. These charges include all mooring.—*North Dock.* Tonnage rates from 2d to 6d ton inwards, and ½d, 1d, and 2d ton outwards.

Pilotage.—**District.** From Souter Point to Ryhope Dene, and the whole port and harb. of Sunderland. **Rates.** For all vessels into or out of Sunderland 1/6 foot. In addition to these pilotage dues, vessels above 350 tons reg. pay ½d ton on the excess of reg. tonnage over and above that number of tons.

Towage.—Inwards.—Sailing vessels from within the ballast buoys to any part of the docks or river below the bridge 1½d; when a second tug is employed, 1d additional; sailing vessels from within the piers either to the docks or river 1d; steam vessels from sea either to docks or river 1d reg. ton. All vessels under 80 reg. tons, either to docks or river 10s each. Outwards.—Sailing vessels from any part of the South Docks to sea, or from the North Dock to sea by the river 1½d (when two tugs are employed, 50 per cent. additional for the whole towage service); sailing vessels from any tier or berth in or below the rack to sea, either by river or through the dock 1½d (should the vessel remain in the dock over the tide, then ¾d per reg. ton; and when towed to sea, the outward rate of 1½d); steam vessels to sea, either from the docks or river or through the docks 1d reg. ton. All vessels under 80 reg. tons, either from the docks or river 10/ each. **Harbour Towage, &c.** All vessels from any ballast wharf to any tier or berth in or below the rack, up to 240 tons ½d; for each ton above 240 tons ¼d (no less charge than 5/ per vessel); all vessels from any part of the North or South Docks, to, in, or below the rack, up or down ¾d (no less charge than 7/6 per vessel); all vessels from the North Docks to the Commissioners' Graving Docks, or any part of the South Docks each way ¾d; all vessels from any tier or berth in or below the rack to any tier below, up to 240 tons ½d, for each ton above 240 ¼d (no less charge than 5/ per vessel); all vessels from the Commissioners' Graving Docks to any part of the South Docks ½d reg. ton. These rates do not apply beyond the limits of the port.

Officials.—*River Wear Commrs.*, Gen. Man. and Treas., C. H. Dodds; Clerk and Sec., J. G. Morris; Harb. Masters, W. Gaudie and D. Wright; Traffic Man., T. Atkinson; Dock Master, P. Wilson; Deputy Dock Master, H. J. Beadle: *N.E. Ry. Co. North Dock*,

Goods Agent, W. Bryans ; Coll. and Min. Agent, E. Knox ; Dock Master, Capt. T. Legender ; Coll. of H.M. Cust., W. G. McLean.

SUNDERLAND, NORTH.—See North Sunderland.

SUTAN or CHURCH BAY.—An open beach on NE. side of Holyhead Bay.

SUTTON BRIDGE.—See Wisbeach.

SUTTON HARBOUR.—See Plymouth.

SUTTON WASH.—A creek under Wisbeach.

SWANAGE, Dorsetshire. Lat. $50^{\circ} 58' N$; long. $1^{\circ} 37' W$.

THW. f. and c. 9h. Ry. S.W. Auth. Pier Co.

A stone and timber pier, 439ft long, carried into 7ft at LW. D. at HW. 14ft. A 5-ton crane.

Charges.—Average 6d per ton. Passengers 1d each.

Official.—Pier Master, Thos. Dixon.

Hotel.—"Royal Victoria."

SWANSEA, Glamorgan. Lat. $51^{\circ} 34' N$; long. $3^{\circ} 57' W$.

Pop. 100,000. Auth. Harbour Trust, under

provisions of the Commissioners Clauses Act, 1847, and the Incorporating Act, 17 and 18 Vic. c. 126. P. Optional outwards ; C. inwards. THW. f. and c. at the Mumbles 6h 17m ; Equinoctial Sp. rise 31ft ; OSP. rise $27\frac{1}{4}$ ft ; N. rise $20\frac{1}{4}$ ft ; R. of N. $13\frac{1}{4}$ ft. W. prev. SW. ; most dangerous ESE. Rys. G.W., L. & N.W., and M. Tr.—I. Timber, deals, all kinds of ores, copper, silver, iron, &c., grain, pig-iron, American produce, &c. ; E. Coals, patent fuel, coke, culm, tin plates, and general manufactures. LV. s.s. *Duke of Westminster*, 3,726 gross reg. tons, sailing vessel, *New York*, 2,699 net tons. Accn. Docks, &c. :—

Name.	Area.	Depth of Water on Sill OST.	Lock.		Half-tide Basins.		
			Length.	Width.	Area.	Depth of Water on Sill OST.	Width of Entrance.
North Dock.	acres. 14	ft. 23	ft. 160	ft. 56	acres. 2 $\frac{1}{2}$	ft. in. 26 0	ft. 60
South do.	13	23	300	60	4	24 6	70
Tidal Basin.							
Prince of Wales' Dock.	23	32	500	60	6 $\frac{1}{2}$	35 0	150
Beaufort do.	1	—	—	—	—	—	—
Total.	51						

Dry and Graving Docks :—

Owner.	Name.	Length.	Breadth.	D. of W. on Blocks.	Entered from
Swansea Dry Dks. & Engineering Co., Ltd. }	Albion	ft. 480	ft. 42 $\frac{1}{2}$	ft. 15 to 17	{ North Dock
Central Graving Dock & Engineering Co.	Central	350	60	14 to 22	Harbour.
Harris Bros.	Cambrian	176	60	18	River.
Do.	Do.	156	52	17	
Swansea Dry Dks. & Engineering Co., Ltd. }	Globe	400	46	13 to 22	{ S. Dock
J. Lewis.	Jersey	240	46	11 to 21	Basin
W. Meager.	Phoenix	305	38	10 to 17	River.
G. B. Meager & Co.	Villiers	280	40	7 to 14	Do.

There are 17,130ft of quayage space. Most modern hydraulic

appliances for quick despatch, ample warehouse accn. transit sheds, sidings, &c. Docks connected with railways direct. Cranes to 6 tons, shears to lift 30 tons.

Charges.—Tonnage dues vary from nothing to 9d ton (steamers trading to ports of North America are charged half the published rates). Wharfage rates on goods. Cranage. Low level railway tolls. Repairing vessels and vessels "seeking" free. Discharging ballast. Charges for use of stiffening booms.

Pilotage.—District. Swansea Harb., &c., and so much of the Bristol Channel as is included within the following limits, viz.: "North of the line of the Nash Lights in one," and east of an imaginary line running north and south of a point four miles westward of the Helwick Light Vessel, near Worms Head. Compulsory inwards, optional outwards. **Rates:—**

If under 60 tons.....	0 6 0	800 tons and under 900 tons..	2 10 0
60 tons and under 100 tons..	0 9 0	900 " " 1,000 " " 2 15 0	
100 " " 150 " " 0 12 0		1,000 " " 1,100 " " 3 0 0	
150 " " 200 " " 0 15 0		1,200 " " 1,300 " " 3 10 0	
200 " " 250 " " 0 18 0		1,300 " " 1,400 " " 3 15 0	
250 " " 300 " " 1 1 0		1,400 " " 1,500 " " 4 0 0	
300 " " 400 " " 1 5 0		1,500 " " 1,600 " " 4 5 0	
400 " " 500 " " 1 10 0		1,600 " " 1,700 " " 4 10 0	
500 " " 600 " " 1 15 0		1,700 and upwards.....	4 15 0
600 " " 700 " " 2 0 0		And 5/ for every 100 tons	
700 " " 800 " " 2 5 0		above 1,700.	

Pilots will take vessels over 500 tons reg., outward-bound, clear of the Green Grounds, or to the Mumbles Roads; and the above charge includes landing the pilot in all cases. One-half the above rates only to be paid and payable to every pilot navigating or assisting any vessel (not entering Swansea Harb.) within any part of Swansea Bay, or within the limits of the pilotage ground. Vessels of 200 tons and upwards, if boarded beyond the following bearings, shall pay additional pilotage, as under:—

	West of Pwllidy Point bearing NNE.	West of Oxwich Point, bearing NNE. South of Sker Buoy, bear- ing ENE. or WSW.	West of Worm's Head, bearing NNE.
	£ s. d.	£ s. d.	£ s. d.
200 and under 300 Tons ..	0 4 0	0 5 0	0 6 0
300 " 400 " "	0 5 6	0 7 6	0 10 0
400 " 500 " "	0 7 6	0 10 0	0 15 0
500 " 600 " "	0 10 0	0 12 6	1 0 0
600 " 700 " "	0 12 6	0 15 0	1 5 0
700 tons upwards ..	0 15 0	0 18 6	1 10 0

For vessels under 500 reg. tons to the Mumbles Roads, or clear of the Green Grounds, in addition to the outward pilotage rates, the following additional rates, including landing:—Under 100 tons 4/; 100 and under 200, 5/6; 200 and under 300, 7/6; 300 and under 400, 9/6; 400 and under 500, 11/. For vessels to the eastern or western limits, in addition to the outward rates, the following additional rates, including landing:—300 and under 500 tons £3; 500 and under 700 tons £4; 700 and under 900 tons £5; 900 and upwards £6. For moving vessels within the harb.:—Under 100 tons, 2/6; 100 and under 200 tons, 3/6; 200 and under 400 tons, 5/; 400 and under 500 tons, 7/6; 500 and under 600 tons, 10/; 600 tons and upwards, 12/. This rule does not apply within either dock.

Towage.—In or out of the harb. 2d; in the harb. anywhere below the Midland Ry. bridge 1d; above that bridge 1½d reg. ton.

Officials.—Gen. Supt. and Statutory Harb. Master and Coll. of rates, John Dixon, Assoc. Inst. C. E.; Clerk to Trust., F. James; Assist. Colls., G. Jones and D. R. Morgan; Dep. Harb. Master, Capt. J. Rosser; Dock Master (Prince of Wales' Dock), Capt. G. Rosser; Dock Master (North Dock), Capt. W. Cocks; Dock Master (South Dock), Capt. S. Harman; Coll. of H.M. Cust., J. J. Head; Lloyd's Agents, Messrs. Richardson; Lloyd's Surv., W. Ashton.

Hotels.—"Mackworth," "Castle," "Cameron," "Bush," &c.

TARBERT, Argyllshire, Loch Fyne. A creek under Port of Greenock. D. HWST. 35ft, HWNT. 33ft.

Charges.—Harb. dues $\frac{1}{4}$ d per ton.

TAYPORT (Ferryport-on-Craig), Fifeshire. Lat. $56^{\circ} 27' N$; long. $2^{\circ} 49' W$. Ry. NB. THW. f. and c. 2h 30m. A small harb. belonging to the NB. Ry., 650ft \times 236ft, having an entrance 60ft wide; 1,360ft quayage; 21ft HWST., and 7 $\frac{1}{2}$ ft LWST. Cranes lift to 6 tons. Staiths load 60 tons per hour. D. LWST. 6 $\frac{1}{2}$ ft, LWNT. 8ft, HWST. 19ft, and HWNT. 14 $\frac{1}{2}$ ft.

Charges.—Vessels 1 $\frac{1}{2}$ d per ton. Charge on trimming coal 1 $\frac{1}{2}$ d per ton. Dues on imports and exports 6d; minerals 3d; wood 4d per ton.

Official.—Harb. Master, Wm. Culbert.

Hotels.—"Scotsraig" and "Freemasons."

TEIGNMOUTH, Devonshire. At the mouth of the river Teign. Lat. $50^{\circ} 32' N$; long. $3^{\circ} 29' 36'' W$. Pop. 7,120. Auth. Harbour Commissioners. P. NC. THW. f. and c. 6h 0m; Sp. rise 13ft; N. rise 9 $\frac{1}{2}$ ft; outside bar, time of HW. and LW. about 25m earlier, and there may be 6in more rise and fall. W. prev. W.; most dangerous SE. Ry. G.W. Tr.—I. Coal and general goods; E. Pipeclay, copper, iron, zinc, ores, and lead. Accn. The harb. is formed by the river Teign. Wharf and warehouse accn. Hutchings' Patent Slip, to take vessels of 250 tons, is 100ft long, 21ft wide. Two quays accommodating vessels drawing 13ft at NT., and 16ft at ST.

Charges.—Harb. dues 1d per ton. Ballast, loading or discharging, 11d per ton.

Pilotage.—District. From Lyme to Bob's Nose, and *vice versa*. Rates. Per foot :—

Vessels in and out over Teignmouth Bar.	Colliers and Coasting Vessels.				Vessels from or to Foreign Ports.			
	In.	Out.	But not to ex. for each Vessel.		In.	Out.	But not to ex. for each Vessel.	
			In.	Out.			In.	Out.
Not exceed. reg. tons.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	
Ex. 20 and not ex. 30 tons	1 0 0	0 6	5 0	2 6	1 3	0 8	6 0	3 0
" 30 " 40	1 0 0	0 6	7 6	3 9	1 3	0 8	8 6	4 3
" 40 " 50	1 2 0	0 7	10 0	5 0	1 5	0 9	12 0	6 0
" 50 " 60	1 4 0	0 8	13 0	6 6	1 7	0 10	16 0	8 0
" 60 " 80	1 6 0	0 9	16 0	8 0	1 10	0 11	20 0	10 0
" 80 " 100	2 2 0	1 11			2 1	1 1		
" 100 " 125	2 2 0	1 1			2 6	1 3		
" 125 " 150	2 7 1	1 4	All by the foot dft., except as above stated, for vessels not ex. 60 tons reg.		2 11	1 6	All by the foot dft., except as above stated, for vessels not ex. 60 tons reg.	
" 150 " 175	3 0 1	1 6			3 4	1 8		
" 175 " 200	3 5 1	1 9			3 9	1 11		
" 200 " 225	3 10 1	1 11			4 2	2 1		
" 225 " 250	4 2 2	1			4 6	2 3		
" 250 " 300	4 6 2	3			4 10	2 5		
" 300 " 350	4 10 2	5			5 4	2 8		
" 350 " 400	5 4 2	8			5 10	2 11		
" 400 " 450	5 10 2	11			6 4	3 2		
" 450 " 500	6 3 3	2			6 9	3 5		
	6 7 3	4		7 1 3	7			

All by the foot dft., except as above stated, for vessels not ex. 60 tons reg.

All by the foot dft., except as above stated, for vessels not ex. 60 tons reg.

A pilot taken on board off the Bill of Portland, or the Start (which is optional to the master), is to receive beyond the pilotage from Bob's Nose to Lyme, as follows, viz.:—For colliers and coasters £2 2s; for ships from foreign parts, £3 3s; and proportionately for intermediate distances. Pilots, if required, are to provide a boat and crew to assist over the bar, to a mooring berth, or to sea, for which they shall be paid over and above the pilotage, 2/6 for each man or oar employed, and 2/6 for the boat.

Towage.—In, 3d; out, 2d ton.

Officials.—Clerk to Comrs., J. H. Tozer; Harb. Master and Recr. of Harb. dues, T. W. Hutchings; Coll. of H.M. Cust., A. Tucker.

Hotels.—"Royal," "Queen's," and "London."

TENBY, Pembrokeshire. Lat. 51° 42' N; long. 4° 43' W. Carmarthen Bay. Ry. Pembroke and Tenby. **Auth.** Corporation. **Accn.** Area of harb. 5 acres; dry at LW., and 16ft HWST. Quay 360ft long. D. at pier head 25ft HWST. W. prev. SE. **THW.** f. and c. 5h 42m. A lifeboat station.

Hotel.—"Royal White Lion."

THAMES RIVER (see London). **Auth.** River Thames Conservancy, by Acts, 1857 to 1883. D. off Leigh Shoal, near Southend, where authority commences, is 23ft LWST. All vessels entering the river are returned in the Annual Statement, made by the Board of Trade of vessels entering the Port of London.

THORNHAM, Norfolk, in Brancaster Bay. A creek under Port of Lynn. D. HWST. 8ft, HWNT. 4ft.

Charges.—Harb. dues 2d per ton. Ballast free.

Pilotage.—10/ to 12/6 per vessel.

THROSK. A creek under the Port of Alloa.

Charges.—One-sixth of those of Stirling.

THURSO, Caithness. On the N. coast of Dunnet Bay, at the mouth of the River Thurso. No harb. authority. Accommodation for boats engaged in the salmon and cod fisheries.

TILBURY (see London). On the River Thames, opposite Gravesend. Vessels enter at all times of tide.

Accn.—

Name.	Dimensions.	Area.	Quayage.
Main Dock	1,816ft × 600ft	25 acres	2,684ft.
Central Branch Dock	1,600ft × 300ft	11 "	3,500ft.
East Branch Dock	1,600ft × 250ft	9 "	3,400ft.
West Branch Dock	1,600ft × 250ft	9 "	3,400ft.
		HWST.	HWNT.
Long Lock to do, in 2 chambers.....	535ft	41ft	39ft.
" " 2 "	145ft	42ft	40ft.

700ft × 80ft wide.

There are about 50 cranes (30 cwt. hydraulic), a floating leviathan (50 tons), two dry docks, a transhipment quay, and coaling jetty.

TOBERMORY, Mull Island, Hebrides. Lat. 56° 37' N; long. 6° 5' W. **THW.** f. and c. 6h 0m. **Auth.**

Owner, F. W. Caldwell, under Act 25 and 26 Vic., c. 51. **Accn.** A stone pier carried out to 10ft LW., and 24ft HW. Used by steamers and coasters.

Charges.—Regulated by Act of Parliament.

Hotel.—"Western Isles."

TOPSHAM, Devonshire. Lat. 50° 40' N; long. 3° 27' W. Ry. L. and SW. **Auth.** Comms., under Act 3

Vic. c. 74. There is a dry dock but no harb., merely a quay on the bank of the navigable channel of the Esk; 8 miles from its mouth. Used by coasters up to 100 tons. Only vessels drawing less than 10ft can get alongside at HW.

TORQUAY, Devonshire. Lat. $50^{\circ} 27' 30''$ N; long. $3^{\circ} 31'$ W. Ry. G.W. THW. f. and c. 6h om. Auth. Local Board of Health: a Bill has just passed for the extension of this harb. Accn. The outer harb. has from 10 to 13ft at LWST.; and 20 to 23ft at HWST. Quayage round inner harb. 730ft, with 10 ton crane. P. NC. Rates as agreed by hobbler.

Charges.—4d per ton reg. with cargo; 2d per ton only on windbound vessels. Quay dues various; ballast 1/ per ton.

Official.—George Pepperell, Harb. Master.

Hotels.—"Queen's," "Royal," "Victoria and Albert," "Imperial," &c. The new harbour works will be commenced shortly.

TORRYBURN, Fifeshire. A creek on the Firth of Forth. 4 miles WSW. of Dunfermline. D. HWST. 10ft, HWNT. 8ft.

TRAMORE, Co. Waterford. Near the entrance to the Suir. "The Metal Man" is a sea mark; the figure of a sailor standing upon a round tower and pointing downwards to the rocks below, where the *Seahorse* transport vessel was wrecked in 1816.

TRALEE, Co. Kerry. Lat. $52^{\circ} 16'$ N; long. $9^{\circ} 43'$ W. Pop. 9,600. Auth. Harbour Commissioners. P. C. THW. 4h 3m; Sp. rise $12\frac{1}{2}$ ft; N. rise $9\frac{1}{2}$ ft. D. on bar, ST. $11\frac{1}{2}$ ft, NT. $9\frac{1}{2}$ ft; in basin ST. 14ft, NT. 10ft. Ry. G. S. & W. Tr.—I. Coals, timber, iron, salt, grain, oils, cement, and artificial manures; E. Barley, oats, and pitwood. Accn. There is good accommodation for shipping. Tralee is at the head of a bay, the greater part of which dries at LW. It is approached by a ship canal $1\frac{1}{2}$ miles long, with a depth of 10ft at OST. and $6\frac{1}{2}$ ft at NT. The basin at Tralee has an area of about 60,000ft, with convenience for loading and discharging. There are also a pier and harbour at Fenit sufficient for vessels drawing 23ft. Crane power to 10 tons.

Charges.—Harb. dues 6d per ton. Ballast 1/6 per ton.

Pilotage.—District not defined. Rates 2/ per foot on coasters, and 2/6 on foreigners.

Towage.—From gate to basin, 3/6 per horse.

Officials.—Sec., L. Redmond; Harb. Master, R. McCarthy; Coll. of H.M. Cust., James Trittin.

TRESCOW.—See Scilly.

TROON, Ayrshire, on the Firth of Clyde. Lat. $55^{\circ} 33'$ N; long. $4^{\circ} 40'$ W. Pop. 2,600. Auth. His Grace the Duke of Portland, under Statute 48 Geo. III., c. 47. P. NC. THW. 11h 50m; Sp. rise 10ft; N. rise $7\frac{1}{2}$ ft. D. There is no bar. Depth of water at entrance is from $14\frac{1}{2}$ to $15\frac{1}{2}$ ft. LW. W. prev. from SW.; most dangerous NW. Ry. G. & S.W. Tr.—I. Wood, iron and other ores, and limestone; E. Coal and pig iron. LV. 1,697 tons reg., $22\frac{1}{2}$ ft draught. Accn. The harb. is formed by a breakwater running out in a N. direction. The En. to the

harb. is between the end of this breakwater and a pier, and is 330ft wide. The harb. works are as follows:—

	Area. acres.	Depth. ft.
Tidal Basin or Dock...	About 2	21 at LW.
Outer Harb.	„ 19	14½ to 15½ at entrance.
Do.	—	11 to 12 half-way up.
Do.	—	11 to 12 head of Harb.
Inner Harb.	About 18	Dry at LW.

There is a large iron and wood shipbuilding yard with two Graving Docks, as follows:—

	Length. ft.	Breadth. ft. in.	Depth on OHW. ft.
No. 1	300	37 6	12
No. 2	226	24 6	8

Seven 30-ton steam cranes and one 25-ton steam crane, each capable of shipping 150 to 200 tons of coal per hour.

Charges.—Tonnage dues 1d to 3d ton, according to size. Boats assistance 1½d ton. Dues on goods.

Towage.—To and from the Red Buoy, NW. of the harbour, under 250 reg. tons 2d, 250 and under 500 tons 2½d, 500 tons and upwards 3d ton. To the distance of the Lady Isle, either out or in, £1 each way extra. Should any vessel hoist a jack for a pilot at Lady Isle, they will have one put on board, and be towed in if required, for £1 extra. Notice should be given for tug at least two hours before sailing. Captains refusing to sail after the boat has been got ready by their orders will be charged 5/ additional, unless a satisfactory reason is given for not sailing. Vessels must use their own hawsers, or pay for the use of the harbour one, a rate of not less than 5/ and not higher than 10/, according to the size of the vessel.

Officials.—Man. and Harb. Master, A. Wood; Deputy Harb. Master, W. McMillan; Coll., D. Cook; Principal Officer of Cust., John Paige.

Hotels.—"Portland Arms," "Commercial," and "South Beach."

TRURO, Cornwall. Lat. 50° 16' W; long. 5° 4' W. Including Devoran, Pill Point, Restronguet, Ruan and Tressillian.

Auth. Town Council, under a Prov. Order, 4th April, 1883. A tidal harb. in the channel of the River Truro, having D. 6ft at LW, and 9ft 6in at HW.

ULLAPOOL, Loch Broom, Cromarty. Lat. 57° 55' N; long. 5° 10' W. A small harb. formed by a pier and a breakwater, with 12ft at LW. outside the breakwater.

UNION HALL PIER, Co. Cork. Bantry Bay. A pier belonging to the Grand Jury.

Official.—Harb. Constable, M. McCarthy.

ULVERSTON, Lancashire. Morecambe Bay. Canal belongs to Furness Ry. D. on canal sill 4½ft less than on Liverpool Old Dock sill.

Official.—Harb. Master, J. B. Barnett, Barrow-in-Furness.

UPHILL.—Creek of Port of Bristol, in the Bristol Channel. D. HWST. 12ft HWNT. 3ft.

UYA (pronounced Wi-a). Two islands lying off Mainland, Shetland. A rendezvous for vessels engaged in deep-sea fishing.

VALENTIA, Co. Kerry, Ireland. A harbour belonging to the Grand Jury of Co. Kerry.

VALLEY.—A creek of Holyhead. Stone pier. D. HWST. 15ft, HWNT. 8ft.

Official. J. D. Thomas, Secretary to the Valley Pier Company.

VENTRY, Co. Kerry, Dingle Bay. A pier belonging to the Grand Jury of Co. Kerry.

WALNEY ISLAND, Lancashire, between Morcambe Bay and the entrance to Duddon River. (See Barrow.)

WAREHAM, Dorsetshire. Mouth of the Frome, near Poole.

Ry. L. & S.W. A commodious harb. and quay for small vessels engaged in exporting pipe-clay.

Hotel.—"Red Lion."

WAINFLEET, Lincolnshire. Creek of Boston. 5 miles from the sea.

Official.—Supt, J. Perrin.

WARDLESS, Lancashire. Creek of Fleetwood. On the Wyre.

D. HWST. 15ft., HWNT. 10ft.

WARKWORTH, Northumberland. Lat $55^{\circ} 20' N$; long. $1^{\circ} 31' W$. **Auth.** H. Andrews, Esq. **P. NC.**

THW. at Coquet Roads, 3h; Sp. rise $14\frac{1}{2}$ ft; N. rise 11ft; R. of N. $7\frac{1}{2}$ ft. D. on bar: the bar, which formerly had only 1ft at LW. and $15\frac{1}{2}$ at ST., has been reduced by dredging; usual depth at ST. 18 to 19ft; at N. 13 to 14ft. W. prev. E. to NE., particularly NE. **Ry. N.E. Tr.**—I. Deals, battens, timber, props, &c; E. Coals and bricks. **LV.** 1,350 reg. tons. No vessel can enter at LW. of ST. **Accn.** The harb. is formed by the lower reach of the river Coquet, the entrance to the harb. being between two breakwater piers 225ft apart at the entrance. The area of the harb. below LW. mark is 18 acres; depth of water is about 10ft at LWST., and $24\frac{1}{2}$ ft at HWST. The area to which this depth extends is from the lowest berths on the S. side to the upper berths of the Radcliffe Coal Co. and extends to about 100ft from face of quays. Length of quay space altogether 1,155ft. A line of quays has been formed on the S. side of the river, bringing the river, which at that place was very circuitous and changeable, into a more direct and fixed course. Along these quays are formed the shipping berths of the Broomhill and Radcliffe Collieries, quay rys., harb. master's, staith master's, and coal-trimmer's offices, also warehouses.

Charges.—Harb. dues, 2½d to 3d per reg. ton; for refuge only, 1d per ton. Trimming, 4/ per keel; steamers, 3/ per keel. Ballast discharged, steam crane, 1/ per ton.

Pilotage.—In summer 1/3; in winter 1/6 per foot.

Towage.—In and out 3/6 per keel.

Officials.—Agent to Prop., J. Park; Harb. Master, M. F. Gray; Staith Master, J. Appleby; Lloyd's Agent, T. Leighton.

Hotel.—"The Sun."

WARREWATER or **BUDLE CREEK**, Northumberland.

D. HWST. 14ft., HWNT. 8ft. **THW.** 2h 40m.

WATCHET, Somerset. Lat. $51^{\circ} 10' N$; long. $3^{\circ} 20' W$. **Ry.** West Somerset. **Auth.** Commissioners. A small harb. used by coasting vessels. Area $9\frac{1}{2}$ acres. Quayage about 800ft. Dry at LW. **D.** at HWST. 27ft. There is a good privately-owned steam crane used by arrangement. **W.** prev. N. and N.E. and NW. **THW.** f. and c. $6^{\circ} 58m$. A lifeboat station.

Charges.— $\frac{1}{2}d$ per ton reg., with tolls on goods as per tariff.

Officials.—Clerk, E. Helland; Harb. Master, J. Watts.

Hotel.—"West Somerset," A. Mossman.

WATERFORD, Waterford. On both banks of the Suir. Lat. $52^{\circ} 7' 25'' N$; long. $6^{\circ} 55' 53'' W$. **Pop.** 22,500. **Auth.** Port and Harb. Comrs., acting principally under Act 9 and 10 Vic. c. 292. **P. NC.** **THW.** f. and c. at W. Bridge at 6h 6m; Sp. rise $13\frac{1}{2}ft$; N. rise, $10\frac{1}{2}ft$. **D.** on bar at S.T. 14ft, NT. 17ft. **W.** prev. SW. **Rys.** W. & T., W. & C. (I.), W. & L., and W.D. & L. **Tr.**—I. Grain, timber, and coal; E. Cattle, grain, and agricultural produce. **LV.** ss. 1,892 tons, deepest dft. $25\frac{1}{2}ft$. **Accn.** A natural harb. formed by the channel of the Suir from the city of Waterford to its confluence with the Barrow, and thence to the sea by the estuary of these two rivers, a distance of 15 miles. Width of entrance 3 miles. The river Suir is navigable for vessels of 20ft dft. up to Waterford, where they lie afloat at the quays. Quayage space, warehouses, cranes, graving bank, &c. Depth of water at the quays 22ft LWOST. Vessels windbound anchor off Passage East.

Charges.—Harb. dues under 100 tons $1\frac{1}{2}d$ ton, over 100 tons 31 ton. Light dues all vessels over 81 tons $\frac{1}{2}d$ ton. Tonnage dues. Water bailiff's fee. Anchorage.

Pilotage.—District. On the east, an imaginary straight line drawn from a point on the coast at or near Crossfarnoge Point to a point at sea three leagues southward of same. On the west, an imaginary straight line drawn from a point on the coast at or near Great Newtown Head, to a point at sea one league southward of same. On the south, an imaginary straight line drawn from the seaward extremity of the above eastern boundary line to the seaward extremity of the western boundary line. On the north, an imaginary line drawn from Granagh Castle to Bilberry Rock, about one mile above Waterford Bridge. **Rates.** Inward:—

	To above Credan Head, and not further than Passage.	To Check Point and Glasshouse Reach, and no further.	Above Glass- house Reach and up to Waterford.
PILOTAGE STATION, No. 1. For piloting any vessel from any part of this station.....	$1\frac{1}{2}d$ per ton	$2\frac{1}{2}d$ per ton	$3\frac{1}{2}d$ per ton
PILOTAGE STATION, No. 2. For piloting any vessel from any part of this station.....	$1\frac{1}{2}d$ per ton	$2d$ per ton	$3d$ per ton.
MAXIMUM. Provided always, that no vessel, of whatever tonnage, shall be charged altogether more (in- ward) than	£ s. d. 7 10 0	£ s. d. 9 13 4	£ s. d. 15 0 0

Outward :—

	To Passage.	To any part of Pilotage Station, No. 1.
From Waterford.....	1½d per ton	2½d per ton
From Waterford, if ballasted by Ballast Office..	1½d per ton	2½d per ton
From Cheek Point.....	...	1d per ton
From Passage.....	...	1d per ton
MAXIMUM.		
Provided always, that no vessel, of whatever tonnage, shall be charged altogether more (outwards) than—		
	£ s. d.	£ s. d.
From Waterford.....	4 10 0	7 10 0
From Waterford, if ballasted by Ballast Office..	3 10 0	6 10 0
From Cheek Point.....	...	3 0 0
From Passage.....	...	3 0 0

Towage.—Same as New Ross.

Officials.—Sec. to Harb. Commrs., J. Allingham, jun.; Harb. Master, N. Parle; Coll. of Rates, E. Power; Coll. of H.M. Cust., R. Boyd; Pilot Master, Capt. Kennedy.

Hotels.—At Waterford: The "Imperial," "Adelphi," "Commins's," and "Globe." At Passage: "Kavanagh's" and "Love's."

WATERMOUTH, Devonshire, near Ilfracombe. Ry. L. & S.W.

THW. f. and c. 5h 30m—1h 30m. A small harb. frequented by vessels of about 60 tons; the property of Mrs. H. M. Bassett. **D** at HWST. 24ft.

Officials.—Agents, T. J. Pitts Tucker & Sons, Barnstaple; Harb. Master, R. F. Lewis.

WEARMOUTH, Durham, on the Wear. Connected with Sunderland (which see).

WELLS, Norfolk. Lat. 52° 57' N; long. 0° 52' E. 29 miles NW. from Norwich. Ry. G.E. **Auth.** Commrs., under several Acts of Parliament. **Accn.** Quay 645ft. **LV.** 130 tons. **W.** prev. NE. and NW. **THW.** f. and c. 6h 20m. A life-boat station.

Charges.—1/ per ton reg. inwards; 8d outwards.

Official.—Harb. Master, Capt. W. Temple.

Hotel.—The "Crown."

WEMYSS, Renfrewshire, F. of Forth. Lat. 55° 54' N; long. 4° 53' W. **Auth.** Owner, R. Erskine Wemyss, Esq. **Accn.** Quay frontage 600ft. **D.** HWST. 16ft and HWNT. 10ft. Used by vessels loading coals from the Wemyss Collieries. **LV.** 545 tons. **W.** prev. W. **THW.** f. and c. 1h 57m.

WESTPORT, Mayo. Lat. 53° 49' N; long 9° 30' W. **Pop.** 5,000. **Auth.** Port and Harb. Commissioners, under Act 1853. **P.** NC. **THW.** 4h 57m; S. rise 12½ft; N. rise 9½ft. **W.** prev. W. Ry. M.G.W. **Tr.**—I. Timber, coal, salt, &c. E. Agricultural produce, &c. **LV.** from 400 to 500 tons. No vessels enter at LW. **Accn.** A very safe harb. Large ships bound to Westport and having to be discharged always anchor afloat in Inishlyre, which is within the harb. of Westport; here there is safe anchorage in all weathers for ships of very large tonnage; warehouse, wharf, and crane accommodation. The quay at Westport is 2,500ft in length; the approach to the quay is never undertaken without pilots. Vessel 14ft draught may approach quay.

Charges.—Harb. dues. Small boats according to size.

Pilotage.—**District.** From Harb. to Inishport Lighthouse.

Rates :—

				Every Vessel entering or leaving.			
				£	s.	d.	£ s. d.
30 and under	40 reg. tons	...	0 8 0	150 and under	160 reg. tons	...	1 16 0
40 "	50 "	...	0 10 0	160 "	175 "	...	1 18 3
50 "	60 "	...	0 11 6	175 "	200 "	...	2 0 6
60 "	70 "	...	0 15 9	200 "	225 "	...	2 2 9
70 "	80 "	...	0 18 0	225 "	250 "	...	2 5 0
80 "	90 "	...	1 0 3	250 "	275 "	...	2 7 3
90 "	100 "	...	1 2 6	275 "	300 "	...	2 9 6
100 "	110 "	...	1 4 9	300 "	325 "	...	2 11 9
110 "	120 "	...	1 7 0	325 "	350 "	...	2 14 0
120 "	130 "	...	1 9 3	350 "	375 "	...	2 16 3
130 "	140 "	...	1 11 6	375 "	400 "	...	2 18 6
140 "	150 "	...	1 13 9	400 tons and upwards	proportionate rates		

Towage.—As per agreement.

Officials.—Sec. to Port and Harb. Commrs., J. Reed ; Harb. Master, G. Downer ; Supt., T. Carnaghan ; Ry. Man. (M.G.W.R.), Dublin, J. E. Ward.

WEXFORD, Co. Wexford. Four miles from the entrance to the harb., 64 miles SW. from Dublin. Lat $52^{\circ} 20'$ N ; long. $6^{\circ} 25'$ W. Pop. 12,055. Auth. Harbour Commissioners, under Acts 37 and 38 Vic. c. 40. P. NC. THW. at town 7h 21m ; Sp. rise 5ft ; N. rise $3\frac{1}{2}$ ft. D. on bar at LWST. 8ft. W. prev. S. and SW., most dangerous E. and N.E. Ry. D. W. & W. Tr.—I. Timber, coal, &c. ; E. Agricultural produce, &c. LV. 14½ft to 15ft dft. at HW. good ST. ; no vessels enter at LW. Accn. A natural harb. ; there are neither piers nor docks. There is 2,475ft of quayage, and the general depth of water is from 6ft to 13ft. Abreast the quays there is from 15ft to 20ft. Hand-cranes, weighing machines, &c. There is a patent slip 360ft long and 58ft wide.

Charges.—Tonnage dues, sailing 4d reg. ton, steamers 5d. Rates on cargo.

Pilotage.—District. The area within an imaginary line drawn straight from Blackwater Head to the northern end of the Long Bank, thence along the western edge of said bank to its southern end, and thence straight to Greenore Point. Rates per reg. ton. Every vessel entering district, and discharging or loading any cargo, or without discharging any cargo, taking in any additional cargo in the harb. or in Rosslare, and then going out of the said district, inward and outward together, 5d. Entering district, and discharging any cargo in the harb. or Rosslare, but not taking in any cargo, inward, 4d. Going out of district with cargo, but not having entered with cargo, outward 4d. Entering or going out of district in ballast, not having paid any of the foregoing rates, for inward or outward, 1d. Coming within district by reason of stress of weather or other cause, but not discharging or receiving any cargo within such limits, inward or outward 2d. reg. ton. And in addition to the above rates :—From or to any point outside district, for every vessel not ex. 100 reg. tons £1 ; for every vessel ex. 100 reg. tons and not ex. 200 reg. tons £2 ; for every vessel ex. 200 reg. tons £2 for the first 200 reg. tons, and £2 additional for every 100 reg. tons beyond the first 200 reg. tons.

Towage.—Quay to bay, or *vice versa*, 6d. reg. ton. Island side to bay, or *vice versa*, 5d. Island side to quay, or *vice versa*, 3d. Vessels in ballast, in, out, or any portion of the way, 2d per

reg. ton. Minimum charge 10/. Outside of above limits by special agreement.

Officials.—Sec. to Comrs. and Lloyd's Agent, J. W. Walsh; Engineer, E. K. Ryan, C.E.; Harb. and Ballast Master, Capt. A. Ennis; Coll. of Rates, W. Murphy; Supt. of H.M. Cust., J. Samuel; Pilot Master, Capt. P. Cogley; Traffic Man. (D. W. & W. Ry.), W. L. Payne.

Hotels.—"White's" and "Imperial."

WEYMOUTH, Dorset. Lat. $50^{\circ} 36' 30''$ N; long. $2^{\circ} 26' 40''$ W. Pop. 13,715. Auth. Town Council, under

several local Acts. P. NC. THW. at Portland Br. 7h 1m; Sp. rise $6\frac{1}{2}$ ft; N. rise $4\frac{1}{2}$ ft. D. on bar 12ft LWST. W. prev. SW. Rys. G. W. and L. & S. W. Tr.—General. LV. 500 tons at HW. and 200 tons at LW. Accn. The river Wey divides the towns of Weymouth and Melcombe Regis, and from its mouth a stone pier runs out ENE. for about 200yds, and is continued 300ft by a concrete pier 2ft above OST. The N. side of the entrance is protected by a stone pier running out E. by S., and from its end a pile pier extends 300ft. Depth of water in harb. 12ft LW. and 17ft HWST. Area of harb. E. of bridge $19\frac{1}{2}$ acres, W. of bridge 27 acres. The Alexandra patent slip is 134ft long, 26ft wide; height of tides 15ft ST., 12 $\frac{1}{2}$ ft NT. Extensive improvements have been made in the harbour to give increased depth, for an improved service of boats for the Channel Islands by the G.W. Ry.

Charges.—Harb. dues 3d ton; in and out windbound 3/.

Pilotage.—District. From St. Alban's Head to Lyme, and *vice versa*. Rates per foot:—Inwards or outwards. From a line drawn from Lulworth to the outer part of the Race or Shambles, into Weymouth or Portland Roads or Bay, from Weymouth or Portland Roads or Bay into Weymouth Harb., from sea into Lyme Harb., under 8 ft., 2s., and 3d. for each additional foot. The pilot must, if required, provide a boat with four men to attend her from the Roads to the quay, or *vice versa*, to tow her in or out, or carry ropes on shore, or to the posts, &c., as may be necessary, for which each man is to be paid 4/ per tide; the owner of the boat to be paid the same as a man. A pilot taken on board at sea shall be entitled to the following additional pay:—From St. Alban's Head or Bill of Portland, to off Bridport or Lyme £2 2s.; if three leagues from the limits of Weymouth, Bridport, or Lyme £3 3s.; if six leagues from the limits of Weymouth, Bridport, or Lyme £4 4s.; if ten leagues from the limits of Weymouth, Bridport, or Lyme £6 6s. Steam vessels calling at Portland for coal only to pay for pilotage into and out of Roads 1/6 per foot for vessel—dry of water.

Towage.—As per agreement with Messrs. Cosens & Co., Weymouth.

Officials.—Town Clerk, P. Hooper; Harb. Master, F. W. Mace; Wharfinger, Henry Warren; Coll. of H.M. Cust., R. A. Crumbleholme.

Hotel.—"Queen's."

WHIDDY HARB., Bantry Bay, Ireland. Secure and well sheltered for large ships.

WHITBY, Yorkshire. On the Esk. Lat. $54^{\circ} 29' N$; long. $0^{\circ} 36' W$. Pop. 14,086. Auth. Harbour Trustees, under Act 1879 and an order of 1883. P. NC. THW. f. and c. 3h 45m; Sp. rise 15ft; N. rise $11\frac{1}{2}$ ft; R. of N. 8ft. D. Bar dry at LW. W. prev. NE.; most dangerous N. to NNW. Ry. N.E.

Tr.—I. Timber, &c.; E. Coal, alum, jet, &c. **LV.** *New Brunswick*, 574 reg. ton. **Accn.** The harb. is formed by two piers, E. 980ft long, and W. 1,050ft long, and has an area of 89 acres, with a depth at HWOSt. varying from 10ft to 15ft, which is influenced by wind. Two 5 ton cranes; private cranes of from 2 to 5 tons. Quayage space about 3,000ft. There are five Dry Docks, viz:—

Name.	Owner.	Length.	Width. Gates.
		ft.	ft. in.
	Whitby & Robin Hood's Bay Dock Co.	106	31 6
	Do. Do. Do.	110	33 6
	Do. Do. Do.	113	33 6
Whitehall ...	Turnbull & Son	200	36 3
Boghall	Do.	130	31 10
Average Depth of Water on Silt ST. 5½ft.			

Charges.—Harb. dues, under 50 tons 2d ton, over 50 tons 2½d ton. Refuge, 1d per ton. Rates on goods.

Pilotage.—District undefined. Rates per foot. Whitby, from April 1 to Oct. 1, 1/3; from Oct. 1 to April 1, 1/6. Seaham, ditto; Blyth, ditto; Amble, ditto; Alnmouth, ditto; North Sunderland, ditto; Holy Island, ditto.

Towage.—Vessels of 9 keels 14/, and 1/ for each additional keel.

Officials.—Sec. to Harb. Trust., P. G. Coble; Harb. Master, Capt. R. Gibson; Supt. of H.M. Cust., S. Scott.

Hotels.—"Royal," "Crown," "Angel," and "Station."

WHITEHALL, Stronsa, Orkneys. **Auth.** Col. D. Balfour, under Act 1879. **Accn.** A stone pier 464ft long, carried out to 10ft **LW.** and 23ft **HWST.** Vessels of 7ft draught come alongside at all times of tide, and vessels of 13ft 6in at **HW.** **W.** prev. and most dangerous **NW.** and **NE.**

WHITEHAVEN, Cumberland. Seaport, halfway between the Mersey and the Clyde. Lat. 54° 39' N; long. 3° 35' W. **Pop.** 19,300. **Auth.** Harbour Trust., under Principality Act 22 Vic. c. 14. **P. NC.** **THW.** 11h 14m; **Sp.** rise 26ft; **N.** rise 19ft. **D.** On dock sill **ST.** 22ft; **NT.** 16ft. **W.** prev. **SW.**; most dangerous **W.** and **NW.** **Rys.** **L. & N.W.**, and **W.C. & E.** **Tr.**—I. Grain, timber, and general goods; E. Coal, iron, ore, pig-iron, and steel rails. **LV.** about 2,000 tons burthen. **Accn.** A tidal harb. enclosed by piers, and divided into the Outer, Inner, N. and S. The Queen's Dock is 4½ acres in extent, entrance 50ft wide, depth of water 25ft. Quayage space, 1,692ft. Extensive shed accommodation and every facility for shipping. Patent Slips, steam and hand cranes, &c:—

	Owner.	Length.	Width.	H. of T.		Remarks.
				ST.	NT.	
Patent Slip.	Whitehaven Shipbuilding Co.	ft.	ft.	ft.	ft.	{ 6½ft. of water at fore end of carriage.
		200	32	17	12	
Gridiron...	Harb. Trust	200	21	13	7	

Charges.—Light dues 2d ton. Tonnage rates, in and out, 5 per cent. rebate on published rates on ships using harb. only. Rates on goods.

Pilotage.—District. No licensed pilots. A boat attends all vessels from the harb. authorities. Rates as per agreement. Usual charge from 15/ to £3.

Towage.—1½d ton, within certain limits.

Officials.—Clerk to Harb. Trust, J. Collins; Harb. and Dock Master, T. Mann; Coll. of H.M. Cust. M. Muir; Coll. of Dues, D. Burnyeat; Harb. Engineer, J. S. Brodie.

Hotels.—"Grand," "Globe," "Black Lion," and "Golden Lion."

WHITEHILLS, Banffshire, Scotland. Lat. 57° 40' N; long. 3° 25' W. Situated midway between Banff and Portsoy. A small tidal harb., dry at LW, used by vessels of the Earl of Seafield. W. prev. N. and NE. THW. f. and c. oh 28m.

Official.—Harb. Master, John Watson.

WHITHORN, Wigtonshire. Lat. 54° 40' N; long. 4° 15' W. A small place near Wigton Bay. A lifeboat station.

Official.—Harb. Master, James Duff.

WHITSTABLE, Kent. Lat. 51° 22' N; long. 1° 2' E. Rys. L.C. & D. & S.E. THW. f. and c. 12h om. Auth. S.E. Ry. under Act 16 and 17 Vic. c. 157. Accn. Small tidal harb. with about 613yds. of quayage, dry at LW. D. at HWST. 14½ft and 11½ft at NT. W. prev. SW. to NE. The trade is principally in coal, corn, and timber; extensive oyster grounds. Accn. There are four small slipways to take vessels of 250 tons.

Charges.—Tonnage dues on vessels bringing goods other than coal 4½d per ton; coal vessels, 1¼ per ton reg., and 1d meterage; refuge dues 2d per ton per week.

Pilotage.—If required assistance can be obtained from fishermen at say 10/ per voyage.

Officials.—Harb. Master, W. B. London; Lloyd's Agent, Capt. J. R. Daniels.

Hotels.—"Bear & Key," W. Brannan; "Duke of Cumberland," C. Gurr.

WICK AND PULTNEY, Caithness. Lat. 58° 27' N; long. 3° 7' W. Pop. 8,000. Auth. Harbour Trust. under Act, 1879, and Provisional Order, 1883. P. NC. THW. f. and c. 11h 22m; Sp. rise 10ft; N. rise 7½ft; R. of N. 5ft. D. There is about 2ft of water at LWST. and 10ft LWNT. between the outer portion of the enclosing piers, and the new head of the S. pier is constructed in about 10ft of water at ebb. W. prev. from W. to SW., and are off the land. The bay is exposed from NE. to S., and with strong winds from these directions a heavy surf is raised in the bay. Ry. H. (Sutherland & Caithness). Tr.—I. Timber and salt; E. Grain, wool, fish, &c. LV. 232 reg. ton. Accn. Wick and Pultney Harb. consists of 2 basins, generally known as the inner and outer harb. They are tidal harb., with a total area of about 11½ acres dry at LW. of ST. There are about 4,000 lin. ft of quay walls. Vessels of 230ft in length and 16ft deep can discharge and load. No vessel can enter at LW. There is limited craning and warehouse accommodation.

Charges.—Harb. dues, according to size, from 2d to 6d ton Rates on goods.

Pilotage.—District. Within a line drawn from the North Head to the South Head of Wick Bay. Rates. For every vessel above 20 tons entering and leaving harb. 4d reg. ton; for each tide.

work within the harb. 7/6; for laying out kedge or warp to assist vessels 5/. Outside the harb. limits:—For one tide on board, 5/; for any period from 12 to 24 hours, 10/; if detained on board 36 hours, 20/; if two days or a week on board, not more than 30/; if obliged to bear up for shelter to any of the adjacent harb. not more than 40/. Vessels which have sailed from the harb. and put back by stress of weather, or from any other cause, without having accomplished their voyage, are not liable for additional rates.

Towage.—As per agreement.

Officials.—Treas., W. Crow; Clerk, W. M. Crowe; Sec., D. W. Georgeson; Harb. Master, W. Paterson; Coll. of H.M. Cust., J. Dodsworth.

The harb. is at present being deepened to 19ft at HWST., and 15ft to 16ft at HWNT.

WICKLOW, Co. Wicklow. Lat. 52° 57' N; long. 6° 0' 5" W.

Ry. D.W. & W. **THW.** f. and c. 11h. om.

Auth. Commissioners under Acts, 1842 and 1851. and the Irish Loans Act, 1888. **Accn.** Area about 15 acres. **D.** at entrance 9ft LW. Packet quay 300ft long with 11ft. LW. **LV.** 1,520 tons drawing 15ft. **W.** prev. SW., most dangerous SE. & E. to NE.

Charges.—Windbound, 2d per ton 1cg.; cargo, 4d per ton; foreign ships, 6d per ton.

Official.—Sec. and Harb. Master, James Hamilton.

Hotel.—"Green Tree."

WIGTOWN, Wigtown. Lat. 54° 53' N; long. 4° 25' W. **Pop.**

1,725. **Auth.** Town Council of Burgh. **P. NC.**

THW. 11h 30m. **D.** in river at LW. from 2 to 5ft; **ST.** 18ft; **NT.** 10ft. **W.** prev. S. to SE. **Ry.** Wigtownshire. **Tr.**—I. Pig-iron, timber, grain, coal, and manure; E. Agricultural produce and bale goods. **Accn.** The harb., which is dry at LW., has an area of about 1 acre. There is about 600ft of quayage space.

Charges.—Harb. dues 1d and 1d per ton. Ballast 1s per ton.

Pilotage.—District not defined. **Rates** as per agreement.

Towage.—As per agreement.

Officials.—Town Clerk, W. Hawthorn; Supt. H.M. Cust., R. Chalmers.

Hotels.—"Galloway Arms," "Commercial."

WISBECH, Isle of Ely. On the river Nene. Lat. 52°

41' N; long. 0° 9' E. **Pop.** 9,248. **Auth.** Mayor,

Aldermen, and Burgesses, under Statute 50 Geo. III. c. 206. **P. C.** **THW.** 7h om; **Sp.** rise 15 to 17ft; **D.** 0- bar varies from 10ft to 12ft at LW. **W.** prev. SW.; ships most exposed to NE. **Rys.** G.E., G.N.R. and M. **Tr.**—I. Coal, timber, &c.; E. Corn, coals, salt, and agricultural produce. **LV.** 1,546 tons. **Accn.** The harb. is about 16 miles long, with an average width of 200ft. The Sutton Bridge Dock has an area of 13 acres, with a depth of 18ft at NT. and 23ft ST. Quayage space 800ft, but cannot be used at present. Although the dock cannot be used a large trade is done in the harb. at Sutton Bridge, many large vessels discharging there. Henson's Patent Slip, which can take a vessel of 300 tons, is 380ft long, 80ft wide. **D.** ST. 25 to 27ft; NT. 20 to 25ft. Crane 5 tons.

Charges.—Tonnage rates, UK. and foreign ports, from 2d to 9d ton.

Pilotage.—District. Wisbech to the Eye. **Rates.** Vessels,

laden or light, between the Lower Roads at sea and the Cross Keys Bridge, or from or to any intermediate place (barges and lighters belonging to Wisbech excepted) 1/6 ft. Inwards and outwards:—All vessels drawing 12ft. and upwards, whether inwards or outwards 1/9 ft. If the master or commander of any ship or vessel (except ships or vessels delivering at or loading from the Eye) requires a pilot to go or continue on board beyond the Lower Roads or above the Cross Keys Bridge, he shall pay 1/4 per foot.

Towage.—As per agreement.

Officials.—Town Clerk, F. Jackson; Harb. Master, W. W. Nicholls and G. Hoole; Coll. of H.M. Cust., W. G. Hamilton.

Hotels.—"Rose and Crown," "White Hart," "Vine," "Ship," "White Lion," &c.

WITHERNSEA, Yorkshire. A fishing port and pleasure resort. Open beach. Iron pier.

WIVENHOE, Essex. River Colne. **Auth.** Colne Commissioners under ancient royal grant. **Ry.** G.E. Vessels of 300 tons get up to this place. There is a patent slipway. Messrs. Forrest & Son, of Limehouse, London, are making a graving dock at this place.

Official.—Coll. of Channel Dues, J. M. Johnstone; Cust. Officer, H. Russell.

WOODBIDGE, Suffolk. Lat. 51° 59' N; long. 1° 23' E. On the Deben. **No Harb. Auth.** Considerable trade in coal, corn, timber, &c. **Accn.** Convenient wharves and quays.

Official.—Cust. Officer, W. Quick.

WOODHAVEN, Fifeshire. On the Tay, opposite to Dundee. The only remains of a harb. is a stone pier.

WORKINGTON, Cumberland. On the Derwent. Lat. 54° 38' N; long. 3° 33' W. **Pop.** 23,000. **Auth.** Earl of Lonsdale under Acts, 1850, 1861, and 1869. **P.** NC. **THW.** f. and c. 11h 4m; Sp. rise 25½ ft; N. rise 20ft. **D.** of water at entrance at LW. 2ft. **W.** prev. SW.; dangerous NW. **Ry.** L. & N.W. **Tr.**—I. Grain, timber, ore, and general goods; E. Coal, iron, ore, steel rails, &c. **LV.** 1,032 reg. ton; length 232ft, dft. 18ft 4½ in. **Accn.** The harb., formed by the outlet of the river Derwent, is fronted by a stony foreshore one-third of a mile broad. That to the S. of the entrance projects well out to the W. of the N. shore, and from it a stone pier runs out in a NW. and WNW. direction, from which a breakwater extends NW. 500ft, also on same side are a wooden pier, quay jetty, and main pier containing a space known as the old dry dock; also another projection called Merchants' Quay, between which and the main pier is the harb. On the N. side is the Lonsdale Dock 600ft long, 300ft wide, area about 4½ acres. Entrance gates 40ft wide, depth over sill ST. 18ft; NT. 8ft. Ample and convenient stowing ground for rails, pig-iron, iron ore, &c. Large and convenient shed for dry goods. Steam cranes. The Derwent Patent Slip, which take vessels 150ft long and of 350 tons, is 150ft long, 30ft wide. Eight cranes.

Charges.—Harb. and dock dues 6½d ton. Tonnage rates 7d and 1/7 ton. Harb. boat 1/6 to 21/ per vessel, according to size.

Pilotage.—District. See Whitehaven. Rates 1/6 to 5/ according to size.

Towage.—Steamer inwards, 1d ton; steamer outwards, 1d ton; special rates by agreement. Sailing vessels, inwards, 1½d ton; outwards, 1½d per ton.

Officials.—Harb. Master, F. Vaughan; Deputy, D. Armstrong, Traffic Man., S. M. M'Gowan; Coll. of Harb. Dues, W. Hill.

Hotels.—"Green Dragon," "Station."

WORTHING, Sussex. Watering place. A pier ¼ of mile long, used by fishing boats.

Charges.—According to agreement.

YARMOUTH, Isle of Wight. Pop. 800. Auth. Mayor and Burgesses, under the Yar Bridge Act, 1858, and the Yarmouth Pier Order, 1879. THW. 10h—12h; Sp. rise 7ft; N. rise 6½ft. D. over bar at LW. about 5ft, at HW. about 13ft. W. prev. SW.; most dangerous at NW. Tr.—I. Coal, timber, railway goods; E. Lambs and malting barley. LV. about 350 tons. Accn. At the mouth of the Yar river there is a port for small vessels, an excellent quay, and good shelter is provided by a breakwater. There is a pier outside the harb. used principally by passenger steamers.

Charges.—Harb. dues, colliers over 200 tons 5/ each, under, 3/6 to 4/6 each. Ballast 1/6 ton.

Towage.—None.

Officials.—Town Clerk, A. H. Estcourt; Harb. Master, H. Warder.

Hotel.—The "George."

YARM, Yorkshire. Inland creek of Port of Stockton-on-Tees. D. HWST. 13ft, HWNT. 7ft.

Officials.—Same as Stockton.

YARMOUTH, GREAT, Norfolk. Lat. 52° 34' 25" N; long. 1° 44' 20" E. Pop. 50,000. Auth. Port and Haven Commissioners under Acts, 1866 and 1874. THW. (Y. Roads) f. and c. 9h 15m; Sp. rise 6ft; N. rise 4½ft; R. of N. 3ft. D. The depth at entrance to haven over bar averages 10½ft LWOST. Av. rise and fall of tide 6ft in N. and NW. winds, the rise of tide increases from 1 to 3ft. The minimum depth on bar in the fairway of the entrance between the piers is 10ft at LW. or 16ft at HWOST. W. prev. W. are N.W. to S.W., and the most dangerous are ESE. to S. Ry. G.E. Tr.—I. Grain, timber, cotton seed, oilcake, stones; E. Grain, flour, fish, meat. LV. 751 tons; 16ft 8in deepest dft. Accn. Area of harb. about 20 acres. No docks. About 23,400ft of quayage. Numerous quays and wharves along both sides of the river. There are five dry docks, one of which has taken a ship up to 800 tons. Crane power to 10 tons.

Charges.—Rates on vessels vary from 3d to 6d ton, or certain charges per vessel per annum. Weighing and measurage. Cranage. Ballast 1/2 per ton. Dues on goods ½d to ¾ per ton.

Pilotage.—District. From Yarmouth to and from the Dudgeon.

Light Vessel, and from Yarmouth to and from Orfordness; thence across the Kentish Knock to and from the Downs. Rates:—

	For Vessels not ex. 11 ft dft.	For Vessels ex. 11ft, and not ex. 14ft.	For Vessels ex. 14ft.
	£ s. d.	£ s. d.	£ s. d.
*From the Dudgeon Light, its parallel of latitude, or the northward thereof, to Orfordness	5 0 0	6 5 0	7 10 0
*From Smith's Knowl, Yarmouth, or Lowestoft to Orfordness	1 5 0	2 10 0	3 15 0
*From Southwold to Orfordness	0 17 6	1 5 0	1 17 6
From the Dudgeon Light, its parallel of latitude, or the northward thereof, to Yarmouth Roads, either within or without the Sands	2 10 0	3 12 0	6 0 0
From the Dudgeon Light, its parallel of latitude, or the northward thereof, to Downs	10 10 0	12 0 0	15 15 0
From Smith's Knowl, Yarmouth, or Lowestoft, to Downs	8 8 0	10 0 0	12 12 0
From Smith's Knowl, Yarmouth, or Lowestoft, to the entrance of the Gateways	1 0 0	1 10 0	2 2 0
From Orfordness to the entrance of the Gateways	1 0 0	1 10 0	2 2 0
From Sea to Yarmouth Roads, through any of the Channels	4/ per foot draught.		
From Yarmouth Roads, through any of the Channels, to Sea	2/6 per foot draught.		

* An addition of one-fifth is chargeable on the above rates, in case the pilot shall conduct the vessel to any port or place westward of the Nore Light.

No vessel to pay for less than 11ft. Into and out of the harb. of Yarmouth, per foot:—Vessels 8ft dft. and under, 1/6; above 8ft and under 9ft. 1/9; 9ft and under 10ft, 2/; 10ft and under 11ft, 2/3; 11ft and under 12ft, 2/6; 12ft and under 13ft, 2/9; 13ft and under 14ft, 3/; 14ft and under 15ft, 3/6; 15ft and under 16ft, 4/. An additional 2½ per cent. is charged upon the above rates. Vessels piloted into the harb. (100 to 250 tons) pay 5/; exceeding 250 tons, 1/ for every 50 tons or any portion, for use of boats. Fishing vessels pay 5/ each into harb.

Towage.—To or from Sea—

	Loaded.		In ballast.			Loaded.		In ballast.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.		£ s. d.	£ s. d.	£ s. d.	£ s. d.
Under 50 tons ..	0 13 6	0 12 0			120 and under 130	1 9 6	1 1 6		
50 and under 60	0 15 0	0 13 6			130 "	1 13 6	1 5 6		
60 "	0 16 0	0 14 0			140 "	1 17 0	1 8 0		
70 "	0 19 0	0 15 0			150 "	1 19 0	1 10 0		
80 "	1 1 0	0 16 0			160 "	2 1 0	1 12 0		
90 "	1 3 6	0 17 0			170 "	2 3 0	1 13 6		
100 "	1 6 0	0 19 0			180 "	2 4 0	1 15 0		
110 "	1 8 0	1 0 0			190 "	2 5 6	1 16 0		

And at proportionate rates up to 400 tons. Over 400 tons to be agreed for.

Officials.—Clerk to Port Commrs., J. Tolver Waters; Harb. Master T. Press; Coll. of H.M. Cust., Alex. Macfarlane.

YEALM RIVER, Devonshire. Lat. 50° 17' N; long. 4° 5' N. 7m SE. of Plymouth. A small harb. D. at L.W. at entrance 9ft, at H.W. 16ft. A lifeboat station. T.W. f. and c. 5h 38m.

Charges.—None**Official.**—T. Watton, Chief Officer of Coast Guard.**YOUGHAL**, co. Cork, Ireland. Lat. $51^{\circ} 56' N$; long. $7^{\circ} 50'$

W. Ry. Gt. CS. & W. THW. f. and c. 5h 14m.

Auth. Commissioners under Harb. Order, 1878. D. of water on bar LWST. 4 to 5ft, and at HWST. 21ft. LV. 900 tons drawing 20ft. W. prev. W. and SW., most dangerous S. or SE.**Charges.**—1d per ton, windbound $\frac{1}{2}$ d per ton.**Pilotage.**—As may be agreed.**Officials.**—Sec. J. J. O'Shea; Harb. Master, Danl. Kavanagh.**Hotels.**—"Green Park," "Devonshire Arms," and "Imperial."

II.—FOREIGN PORTS.

AALBORG, Denmark. Lat. $57^{\circ} 03' N$; long. $9^{\circ} 57' E$. Pop.

12,000. Tr.—I. Coal, salt, lumber, &c.; E. Cattle,

grain, wool, hides, fish, &c. Accn. The harbour, though safe, is too shallow to allow vessels drawing more than 11ft to enter. Vessels of greater dft. than that have to lighten at Hals, a small town near the mouth of the Lym fiord. **Charges.** Expenses of a vessel of 175 tons, with cargo out, about £10.**AARHUUS**, Denmark. Lat. $56^{\circ} 9' N$; long. $10^{\circ} 14' E$.

Tr.—I. Coal, iron, wood, and phosphate; E.

Grain, flour, butter, cattle, pork, beef. Accn. 18ft in the harb. **Charges.** Tonnage dues 6d. ton. Harb. dues 1½d. Ballast as per agreement. **Pilotage.** ½d per reg. ton. If no pilot required, only half pilotage charged.**ABO**, Finland. Lat. $60^{\circ} 25' N$; long. $22^{\circ} 17' 15'' E$. Pop.

About 25,000. Tr.—I. Salt, salt fish, pig-iron, manufac-

tured iron, coals, coke, cotton, machinery, sugar, and general colonial produce, soap, timber, bar iron, beef, oats, rye, pork, butter, and game. Accn. There are three patent slips, one of which can take a vessel of 175 to 200ft in length. Vessels drawing more than 10ft or 12ft cannot get up to the town. **Charges.** Custom dues for a vessel of 400 tons about £8, clearing in or out. Harb. fees 2d ton. **Pilotage.** Rates depend on dft. of vessel. Vessel of 15ft dft. from Uto about £3 2s. **Towage.** From £10 to £12.**ACAJULTA**, the port of Sonsonate (San Salvador), 62 m. E.

of San José. Accn. Ships anchor in 9 to 11 fms.

Vessels load and discharge cargos in bongos or whaleboats. **Charges** on vessel of 300 tons loading part at A. and part at Libertad, about £16. One customs charge of 12 c. per ton clears A., Libertad, and La Union, the three ports of San Salvador.**ACAPULCO**, Mexico. Lat. $16^{\circ} 50' 29'' N$; long. $99^{\circ} 46' W$.

Pop. 5,100. Tr.—I. Cottons, silks, spices,

hardwares, and liquors; E. Cochineal, cocoa, wool, indigo, skins, and cotton. Accn. Acapulco is one of the best harb. belonging to Mexico in the Pacific. Vessels of any size discharge alongside wharf; harb. affords shelter and land-locked anchorage of 16 fms and under in a surface of one mile square. **Charges.** It is a free port, and vessels are not liable for tonnage or entrance dues. **Pilotage.** 14/7 foot dft. inward and outward.**ACHEAN**, island of Sumatra. Lat. $5^{\circ} 35' N$; long. $95^{\circ} 45' E$.

Pop. A. and district 500,000, mostly natives and Chinamen.

Tr.—E. Gold, pepper, betel-root, camphor. Accn. Anchorage outside safe in 7 to 9 fms. Only gft water on bar at high water. Foreign vessels not allowed to trade at Achean.

ACRE, Turkey. Lat. $32^{\circ} 54' 35''$ N; long. $36^{\circ} 6' 20''$ E. Pop. 8,000. Tr.—E. Wool, cotton, wheat, millet, olive oil, cotton seed, sesame seed. Accn. Harb. has 12ft of water. Charges. On a brig 214 tons £14 3s 3d. Pilotage. An interpreter, who acts also as pilot and stevedore, is paid according to agreement, say from £3 10s to £5 for the time the vessel remains.

ADALIA, Turkey. Lat. $36^{\circ} 52' 15''$ N; long. $30^{\circ} 45' 3''$ E. Pop. 17,500. Tr.—I. Manufactures generally, brought to A. by English steamers from Smyrna, Syra, &c. E. Wheat, timber, firewood. Accn. Summer anchorage in 15 to 20 fms water. Port only entered by small vessels.

ADEN, Arabia. Lat. $12^{\circ} 47'$ N; long. $44^{\circ} 57' 34''$ E. Pop. About 60,000. Tr.—I. Coal, cotton, cotton and silk piece goods, grain, live stock, metals, provisions, seeds, tobacco, ammunition, wine, beer, spirits; E. Coffee, dyes, ostrich feathers, gum, ivory, hides, pearls. Accn. An outer harb. offering good anchorage to a large number of vessels, and inner harb. taking about 24 vessels of 1,000 tons each; $17\frac{1}{2}$ to 24ft in the inner harb. The depth in outer harb. is from 19 to 28ft. Vessels drawing from 18 to 26ft can anchor in outer harb. Charges. Port dues $1\frac{1}{2}$ d per reg. ton. Vessels calling only for coals pay half dues, those calling only for orders, letters, &c., are exempt. Pilotage. Every vessel of over 100 tons burthen $1\frac{1}{2}$ d reg. ton. Towage. For the distance usually towed (9 miles) 7d ton.

AGUILAS, Spain. Lat. $37^{\circ} 23'$ N; long. $1^{\circ} 37'$ W. Tr.—E. Esparto and iron ore. Accn. Vessels moor to the breakwater in 10 fms, well protected. Cargo is shipped in lighters from moles across the bay. Charges. On steamer loading 400 tons of esparto, including all charges, about £50. Pilotage. On a steamer from Genoa in ballast to load 300 tons of esparto grass at Aguilas, pilotage (daylight, at night double) £1 1s $10\frac{1}{2}$ d.

AJACCIO BAY, Corsica. Lat. $40^{\circ} 55' 1''$ N; long. $8^{\circ} 44' 4''$ E. Pop. About 14,000. Tr.—I. Tobacco, coffee, sugar, pepper, salt, &c.; E. Wood, wine, timber, maize, skins, goats, rags, olive oil, cork, &c. Accn. 30ft of water in the middle of the harb. Pilotage. Vessels of 300 tons or under 1d per ton, above 300 tons $\frac{1}{2}$ d per ton.

AKYAB, India. Lat. $20^{\circ} 5' 7''$ N; long. $92^{\circ} 54'$ E. Pop. About 23,000. Tr.—E. Rice, cotton, &c. Accn. Vessels of the largest dft. can ascend as far as town. Charges. Port dues $4\frac{1}{2}$ d ton. Coast light dues $2\frac{1}{2}$ d ton. Port charges on a vessel of 1,035 tons £380. Pilotage. From Oct. 15 to May 15 for 14ft £3 4s, for 20ft £12. From May 15 to Oct. 15 double. Steamers half rates. A pilot is not necessary to take the ship to the ballast ground, but if one is taken the charge is 48/.

ALBANY, Western Australia. Lat. $35^{\circ} 2' 20''$ S; long. $117^{\circ} 54'$ E. Pop. 3,000. Accn. On the north side Princess Royal Harb. there are 4 and 5 fms of water, deepening to 6 and 8 fms within the Narrows; Sp. rise 1ft to 4ft. The finest harb. in Western Australia, and situated on the north side of Princess Royal Harb. and King George's Sound. Charges. Tonnage dues inward and outward 6d reg. ton. If discharging or loading less than quarter reg. tonnage 3d ton on cargo. Light dues 2d reg. ton., inwards and outwards. Pilotage. Into King George's Sound from the sea and vice versa, 10ft and under £2; 10

to 11ft, £2 4s; 11 to 12ft, £2 8s; 12 to 13ft, £2 15s, and 5/- extra per ft to 21; 21ft and upwards, £5. Into Princess Royal Harb., including navigation of the Sound, and *vice versa*, under 8ft £2; 8 to 9ft £2 5s, and 5/- extra per ft to 19; 19 to 20ft £5 12s; 20 to 21ft £5 18s; 21ft and upwards £6 6s.

ALEXANDRETTA, Syria. Lat. 36° 35' 40" N; long. 36° 9' 5" E. Pop. 5,000. Tr.—I. Corn, rice, salt, and European goods; E. Cotton, galls, silk. **Charges.** Port charges on a vessel of 292 tons, £2 18s. 6d.

ALEXANDRIA, Egypt. Lat. 31° 12' N; long. 29° 51' E. Pop. about 230,000. Tr.—I. Cotton goods, coal, woollen and silk goods, timber, tobacco and cigars, hardware and haberdashery; E. Corn, cotton, wool, gum, soda, rice, dates, senna, feathers, hides, cotton seed, manufactured goods, rags, onions, lentils, and cigarettes. **Accn.** An excellent harb. with an area of 700 acres. The Boghaz or central pass is deep enough for vessels of 24½ft dft. A floating dock capable of taking a vessel of 4,000 tons, and a graving dock 285ft in length. **Charges.** Tonnage dues: Cargo, entering or clearing, 1½ piastre tariff (3.69d) per ton; in ballast 30 paras (1.85d) per ton. **Pilotage.** The pilotage is fixed at 32/, a reduction of 1/6 being made in favour of the mail-boats. **Towage.** On a vessel of 338 reg. tons, coals in, drawing 15½ft, cotton seed out 14½ft: towage to berth £2.

ALEXANDRIA, U.S. Lat. 38° 49' N; long. 77° 18' W. Pop. about 16,000. **Accn.** Vessels of 20ft dft. can safely go into port. There is 16ft of water alongside wharves. The trade is almost exclusively confined to coasters.

ALGIERS, Africa. Lat. 36° 47' 20" N; long. 3° 4' 32" E. Pop. 80,000. Tr.—I. Wine, coal, lumber, machinery, breadstuffs, sugar, manufactured goods, &c.; E. Hides olive oil, wool, tobacco, tan-bark, &c. **Accn.** Two graving docks, the only ones in the colony. The first is capable of holding the largest man-of-war in the French navy. The second is intended for smaller vessels. **Charges.** On a vessel of 200 reg. tons in and out £5. **Pilotage.** On a vessel of 199 reg. tons, coals in and ballast out, in and out £1 6s 6d. **Eng. Brokers.** Bergeret, Cherfils, Crispe, Sarrazin.

ALGOA BAY (Port Elizabeth), Africa. Lat. 33° 0' 40" S; long. 27° 53' E. Tr.—I. General; E. Wool, skins, hides, angora hair, cotton, linseed, diamonds, horns, ivory, feathers, aloes. **Accn.** Inner anchorage in 6 fms, outer anchorage for large vessels in 8 fms. **Pilotage.** Inwards for vessel of 600 tons, £3 3s. (Pilotage not requisite.)

ALICANTE, Spain. Lat. 38° 21' N; long. 0° 26' W. Pop. About 38,000. Tr.—I. Coal, railway materials, spirit for strengthening wine, petroleum, codfish, tobacco, staves, &c.; E. Wine, lead, almonds, liquorice root, old railway iron, &c. **Accn.** Vessels drawing 18ft can discharge alongside mole. **Charges.** On a vessel carrying 600 tons of coal about £60. **Pilotage.** Compulsory entering port, payment on graduated scale, according to tonnage. Vessels 301 to 400 tons 16/8.

ALLEPPY, India. Lat. 9° 30' N; long. 76° 20' E. Pop. 30,000. Tr.—E. Coconut oil, matting, timber, turmeric, mats, flour, coffee, pepper, arrowroot, croton seed, wood, &c. **Accn.** The anchorage is from 3½ to 4½ fms, soft mud bottom. There is an iron pier 700ft long. **Charges.** Port dues 1½d ton.

Vessels entering and leaving within 7 days without discharging or loading cargo or passengers pay only half port dues; those entering in ballast pay three-fourths.

ALMERIA, Spain. Lat. $36^{\circ} 51' N$; long. $2^{\circ} 32' W$. Pop. 45,000. Vessels arrive from all parts. **Tr.**—I. Coal, coke, and machinery from England, staves from America, timber from Norway, &c.; E. Minerals, esparto, and grapes packed in barrels, of which 800,000 barrels are exported annually. **Accn.** The mole now extends about 900 yds, making a safe port, where vessels of all sizes can enter and load. Expenses moderate. **Pilotage.** Inwards, when required $10/2\frac{1}{2}$ to $\pounds 1$ 5s. Mooring in tier when required from $4/2$ to $12/6$, according to tonnage.

ALTONA, Germany. Lat. $53^{\circ} 33' N$; long. $9^{\circ} 58' E$. Pop. About 80,000. **Accn.** Vessels of 14ft dft. can reach the town at all times, and those of 18ft at ST. There is a floating dry dock 138ft. in length. Altona is a free port, and enjoys most of the privileges of Hamburg. **Pilotage and Towage.** Same as Hamburg.

AMOY, China. Lat. $24^{\circ} 10' N$; long. $118^{\circ} 10' E$. Pop. 300,000. **Tr.**—I. Cotton and woollen manufactures, metals, opium, stockfish, woods, mangrove, bark, bean cake, beans, Straits produce, &c.; E. Crockeryware, tea, sugar, sugar-candy, paper, tobacco, grass cloth, alum, gold-leaf, wheat, peas. **Accn.** The harb. is well sheltered, and can receive vessels of the largest dft. There are three dry docks, 310ft, 245ft, and 185ft in length respectively. **Charges.** Tonnage dues for vessels over 150 tons 2/ton. No other charges on vessels. **Pilotage.** Licensed pilots here; no rates given.

AMSTERDAM, Holland. Lat. $52^{\circ} 22' 17'' N$; long. $4^{\circ} 53' 15'' E$. Pop. 396,000. **THW.** f. and c. 3h. **Tr.**—I. Sugar, coffee, petroleum, spices, tobacco, cotton, tea, indigo, cochineal, liquors, wool, grain, timber, naval stores, hides, coal, manufactured goods, &c.; E. Produce of Holland and part of her possessions in the East and West Indies. **Accn.** A spacious and secure harb.; the largest ships come close up to the quays and warehouses. Entrance to harbour by North Sea Canal from Ymuiden, the depth of canal and of larger docks being 24ft. Ample repairing facilities, there being 4 floating dry docks for vessels of 13ft dft, 1 for vessels of 17ft dft, and 2 for vessels of 18ft dft. **Charges.** On a sailing ship of 1,000 reg. tons, loaded inward and ballast outward, $\pounds 105$ in summer, $\pounds 116$ in winter; steamer of 1,000 reg. tons do., $\pounds 60$ in summer, $\pounds 66$ in winter. **Pilotage.** On sailing vessel of 1,000 tons net reg. Inward, loaded, from Dungeness or North Sea 19ft, summer $\pounds 7$ 12s, ditto winter (October to March) $\pounds 9$ 16s 3d. Outwards from Amsterdam to sea, 14ft, summer in ballast $\pounds 1$ 15s 7d, winter loaded $\pounds 2$ 1s, ditto 19ft in ballast, summer $\pounds 5$ 10s 8d, winter loaded $\pounds 6$ 1s 6d. **Towage.** On sailing vessel of 1,000 tons net reg.:—Inwards, loaded, sea to Ymuiden $\pounds 5$ 7s 8d; ditto pierhead to Ymuiden $\pounds 3$ 1s 9d; ditto Ymuiden to Amsterdam $\pounds 6$ 8s. Outwards:—Amsterdam to Ymuiden in ballast $\pounds 5$ 2s 3d, loaded $\pounds 6$ 8s; Ymuiden to sea ditto $\pounds 3$ 1s 9d, ditto $\pounds 3$ 1s 9d; Ymuiden to pierhead ditto $\pounds 2$ 9s 10d, ditto $\pounds 2$ 9s 10d.

ANCONA, Italy. Lat. $43^{\circ} 37' 42'' N$; long. $13^{\circ} 30' 35'' E$. Pop. About 46,000. **Tr.**—I. Coal, iron, sugar, petroleum, fish, and grain; E. Cereals, hides, fruit, and sulphur. **Accn.**

Up to 19t 8in dft. :—

	Summer.		Winter.		For every 4in dft. more.			
	£	s. d.	£	s. d.	£	s. d.	£	s. d.
From sea to Flushing, sailing	16	17 8	22	0 2	1	0 4	1	6 11
" towed	15	17 6	21	16 9	0	18 9	1	5 3½
From Flushing to sea, sailing	12	3 8½	13	0 1	0	16 1	0	16 0½
" towed	11	8 6	12	3 9	0	15 1½	0	15 1½
From Flushing to Antwerp, or vice versa, sailing	8	15 1½	8	18 6	0	5 7	0	5 7
Ditto, towed	7	16 2	8	7 2	0	4 9	0	4 9

Towage. Varies from £12 for 200 tons to £50 for 2,000 tons.

APENRADE, Germany. Lat. 55° 2' 57" N; long. 9° 26' 38" E. Tr.—I. Timber and coals. Accn. Vessels drawing 16ft may safely lie alongside quays. No dry dock, but wooden vessels can be repaired. Charges. Port charges for ship of 200 tons about £12 10s. Pilotage according to agreement. Tonnage. Vessels over 85 cub. metres loaded 2½d, ballast 1½d inwards and outwards.

APIA, Upolu Island, Samoan Group. Lat. 13° 49' 44" S.; long. 171° 44' W. THW. f. and c. 6h 28m. Anchorage for vessels of largest size. Sp. rise 4ft. The harb. in which several American and German war vessels were lost March 15, 1889, and from which H.M. *Calliopo* escaped.

ARCHANGEL, Russia. Lat. 64° 33' N; long. 40° 33' E. Pop. 20,000. THW. 7h 28m; Sp. rise 2½ft only. Tr.—I. Coal, coffee, tea, spices, lead, oil, sugar, logwood, salt, wine, furs, fish, fruit, and hardware; E. Oats, rye, linseed, deals, flax, tow, mats, oil, pitch, train oil, and tar. Accn. The channel has a depth of 14ft, and there are 16ft to 18ft of water on the bar. Charges. On a vessel of 289 tons £45 1s 6d. Pilotage. 3/7 foot. Pilotage is obligatory, and charged whether a pilot is taken or not. Towage. £13 to £16 5s from the port to the sea.

ARENDAL, Norway. Lat. 58° 27' 30" N; long. 8° 47' 29" E. Pop. 4,500. Tr.—E. Timber and sawn wood, also small quantities of copper, iron, and lobsters. Accn. The harb. has from 8 to 20 fms of water. Charges. On vessel of 291 tons, dft. 16½ft, about £46 10s. Towage. Charges moderate.

ARGOSTOLI, Greece. Lat. 38° 11' 36" N; long. 20° 29' 30" E. Pop. About 6,000. Accn. Anchorage in 3 to 12 fms close to the town. The principal port in the island of Cephaloniā. Charges. Vessels with cargo to discharge or load pay 1d reg. ton; load and discharge 1½d; in ballast, exempt within eight days, if over, ½d ton; light dues 5d ton, all with 15% added. Quay dues 1d on vessels over 10 tons.

AUCKLAND, New Zealand. Lat. 36° 50' 5" S; long. 174° 49' 10" E. Pop. 21,000. Tr.—I. English and American manufactured goods, soft goods, groceries, oilmen's stores, ship chandlery, ironmongery, &c.; E. Gold, timber in spars and sawn, gum, flax, wool, oil, hides, tallow, rope, &c. Accn. There are two extensive wharves. Anchorage in 4 to 8 fms, 4 to 5 cable lengths off the city. The wharves have a depth alongside of from 12ft to 20ft at low water. The range of tide is from 7ft to 11ft. A graving dock 310ft in length, and another in course of construction 500ft in length. Charges. Stone ballast taken from the wharf 4/ ton; sand 3/ ton; water 4/ ton; lighterage about 3/ ton; wharfage ½d gross reg. ton per day, Sundays excepted. Pilotage. For every sailing vessel from places outside of Hauraki Gulf, and not

exempted, 3d ton; for every sailing vessel to places outside of Hauraki Gulf, and not exempted, 3d ton; for every steam vessel from places outside of Hauraki Gulf, and not exempted, 2d ton; for every vessel to places outside of Hauraki Gulf, and not exempted, 2d ton. **Towage.** There are no proper steamtugs, the largest of vessels working in and out of harb. with the tide; but small river steamers occasionally (in calm weather) tow, according to agreement.

AVEIRO, Portugal. Lat. $40^{\circ} 38' 34''$ N; long. $8^{\circ} 43'$ W.

Pop. About 7,500. **Tr.**—I. Coal, coke, iron, &c.; E. Oil, wine, oysters, sardines, oranges, salt herrings, anchovies, and copper ore. **Accn.** There is on bar from 12 to 13ft of water at HST. and 10ft at HWNT. No vessel drawing more than 11ft should charter for this port. **Charges.** On a vessel of about 50 tons, in and out £13 8s 6d. **Pilotage.** On a vessel of 491ft 8in, cargo in and out:—In, with boat manned by 9 men £1 15s 6d; in river, mooring vessel 14/6; unmooring vessel and going down to bar 14/6; out, with two boats manned by 18 men £2 14s.

BAHIA, Brazil. Lat. 13° S; long. $38^{\circ} 30'$ W. **Pop.** 130,000.

Tr.—I. Manufactured articles, coals, fish, flour, salt, iron, glass, wines; E. Sugar, cotton, rum, tobacco, coffee, cocoa, dyes, fancy woods, hides, cigars, rice, tapioca, diamonds, bullion, &c. **Accn.** The bay has a depth from 6 to 24 fms. A patent slip for small vessels. **Charges.** Port charges and disbursements on a vessel of 320 reg. tons £280. **Pilotage.** There are no pilots at this port. **Towage.** On barque of 320 reg. tons discharging coal and loading sugar, shifting berth twice £3 7s 6d.

BAHIA BLANCA, Argentine Rep. Lat. $38^{\circ} 47'$ S; long. $62^{\circ} 15'$ W. **Pop.** 66,000. **Accn.** A fine

wharf, minimum depth of water at the pier from 23 to 25 ft, generally much higher. Vessels drawing 18ft can reach Napoota Grande. **Charges.** Port charges on vessels of 555 tons with 881 tons coal about £67. **Pilotage** according to dft. of water and distance, from £6 to £10.

BALTIMORE, U.S. Lat. $39^{\circ} 45'$ N; long. $76^{\circ} 25'$ W. **Pop.**

Over 417,000. **Tr.**—I. Coffee, tin-plates, pig-iron, iron-ore, salt, chemicals, and tropical fruits; E. Wheat, flour, maize, cotton, petroleum, tobacco, bacon, lard, coal, rosin, and live cattle. **Accn.** Baltimore has channels 300ft wide and 27ft deep. Four docks. Vessels drawing from 19 to 22ft can lie safely alongside the wharves. Vessels of 24½ft dft. can reach Baltimore without lightening at LW. One dry dock, 504ft long, for large vessels, and several slips or marine railways. Baltimore is the only port of importance in Maryland, with the exception of Annapolis. **Charges.** Wharfage: vessels less than 400 tons 5/2½; from 400 to 600 tons 6/3; 600 to 800 tons 7/3½; 800 and upwards 8/4 day. **Pilotage.** From Cape Henry to Baltimore, and *vice versa*, vessels drawing 15ft and over 21/1¼, 12 to 15ft. 16/11, less than 12ft, 14/9½ foot. If pilots are detained on board they are allowed 12/8½ day extra. **Towage.** From Baltimore to Annapolis and *vice versa*, for a vessel of 19 to 20ft dft. £8 9s 2d to £10 11s 5½d. Vessels of smaller dft. £6 6s 10½d to £8 9s 2d. Masters should always contract with the tug to place them at the wharf, otherwise they are left in the stream, and it costs £1 1s 1½d to £2 2s 3½d to place them at the wharf. Vessels are sometimes towed from Cape Henry to Baltimore and *vice versa*; this costs from £31 14s 4½d to £42 5s 10d according to size of vessel.

BANDHOLM, Denmark. Tr.—I. Manufactured goods, coals, iron, wine, timber, colonial produce, salt, manures, feeding stuffs; E. Grain, especially wheat and barley, flour, butter, eggs, cheese, wool, hides, cattle, sheep, and pigs. **Accn.** 14ft at the entrance, the same inside the harb. (Danish feet). A slip for vessels up to 200 tons. Bandholm is on the N. coast of the Isle of Lolland. **Charges.** Government dues. Harb. dues 2½d reg. ton. **Pilotage.** From sea to harb., or *vice versa*:—From April 1 to Sept. 30, 1/3 foot; Oct. 1 to March 31, 1/7½d. From the roads of Bandholm to the harb., April 1 to Sept. 30, 3¼d; Oct. 1 to March 31, 4¼d foot.

BANGKOK, Siam. Lat. 13° 38' N; long. 100° 27' E. **Pop.** About 500,000. Tr.—I. Tea, quicksilver, silks, porcelain, camphor, edible bird's nests, piece goods, opium, glassware, and copper; E. Rice, sugar, teelseed, sapan wood, gums, teak, gamboge, pepper, coconut oil, horns, hemp, raw silk, ivory, hides, cardamoms, feathers, salt, and fish. **Accn.** The depth of water varies according to the season of the year from 3 to 5ft at LW. and 11 to 14ft at HWST. Dry dock. **Charges.** On a barque for nearly two months of 737 tons £47 16s 5½d. **Pilotage.** 16/8 foot in, the same out. **Towage.** For a vessel of 427 tons £16 13s 4d up, and the same down.

BANGOR, Maine, U.S. Lat. 44° 47' 50" N; long. 68° 47' W. **Pop.** 20,000. Tr.—E. Lumber, spruce, deals. **Accn.** Ships drawing 22ft can safely load and proceed to sea; depth LW. in harb. 20 to 25ft. There is a slip railway of 300 tons capacity. **Charges.** Wharfage according to size 4/2 to 12/6 per 24 hours. Brokerage on freights 5 per cent. **Pilotage.** Not compulsory, about 6/3 foot. **Towage.** 5d per ton reg. each way, up and down, if only down 7½d per ton, and to sea £10 11s 5½d extra.

BARCELONA, Spain. Lat. 41° 23' N; long. 2° 11' E. **Pop.** About 191,000. Tr.—I. Cotton, coals, coffee, cocoa, sugar and other colonial produce, amber, salt, fish, hides, iron, wax, hardware and horns; E. Silk, soap, woollens, cottons, lace, hats, fire-arms, steel, paper, and ribbons. **Accn.** The harb. has a depth of from 2 to 4 fms. Vessels 15 to 20ft dft. can load within a cable length of wharves. A patent slip for vessels up to 800 tons. It is the most important seaport on the NE. coast of Spain. **Charges.** On steamer 1,000 tons coal £194 7s. **Pilotage.** On a steamer with 1,000 tons coal, in and out (16/8 each way) £1 13s 4d, mooring pilot 10/6.

BARI, Italy. Lat. 41° 8' N; long. 6° 55' E. **Pop.** 80,000. Tr.—I. Coal, colonial produce, metals; E. Wine, oil, almonds, barley. **Accn.** Vessels of large dft. anchor in 17 fms, one mile off B.; depth alongside quay 23ft. **Charges.** Port charges on vessel of 800 tons, about £100; moorings, £1 os. 10d.; wharfage, £1 13s. 4d. **Pilotage** according to tonnage; under 200 tons, £1 os. 10d.

BASSEIN, India. Lat. 19° 49' N; long. about 72° 30' E. **Pop.** 30,000. Tr.—E. Rice. **Accn.** Vessels of 23ft dft. can come to this port. **Charges.** Port charges, vessels of 10ft dft. or under, 17/; above this dft. about 2/ foot. Light dues 3½d ton. **Pilotage.** Rates subject to modifications according to circumstances. Vessels towed by steamers three-fourths rates. Steamers of under 19ft dft. half rates, over that dft. three-fourths. Steamers having in tow any vessel over 100 tons measurement three-fourths

rates. Inward, from outer station to Dalhousie one-third, to Enterprise Island two-thirds, to Bassein full rates. Outward: From Bassein to Enterprise Island one-third, from Dalhousie two-thirds, to Outer Station full rates. Inwards: From below and up to 7ft full £5 19s, two-thirds £3 19s 4d, one-third £1 19s 8d; to 26ft, full £52, two-thirds £34 13s 4d, one-third £17 6s 8d. Outwards: Same as inwards up to 17ft £27. From 18ft, full £27, two-thirds £17 10s, one-third £8 3s 6d. To 26ft, full £57 4s, two-thirds £38 2s 8d, one-third £19 1s. 4d. Note.—The rate for intermediate portions of a foot is regulated as follows: 3in and under, no addition, between 3in and 9in the medium between the two rates, above 9in, the dft. of the next ft to be taken. Harb. pilotage £1 8s. For each day's detention pilots receive £1 8s in addition to their regular pilotage. **Towage.** From £50 to £80, according to size of vessel.

BASTIA, Corsica. Lat. 42° 43' N; long. 9° 26' E. Pop. 20,000. Tr.—E. Oil, wine, goatskins. Accn. Large vessels anchor outside mole in 10 fms. Harbour suitable for small craft. **Charges** according to scale. **Pilotage** not compulsory. If demanded, according to scale. Chief commercial port of Corsica. **Eng. Brokers.** Belgodere, Roussel.

BATH, U.S. Lat. 43° 42' N; long. 69° 46' W. Pop. About 9,000. Tr.—I. From abroad, iron, salt, coals, and shipbuilding materials; E. Ice, lumber, hay, and felspar. Accn. The river front is lined with good wharves, and affords every facility for loading and unloading. The water is deep enough to admit the largest vessels. There is a patent slip railway for vessels up to 1,000 tons. **Charges.** On 1,094 ton vessels £222 15s. **Pilotage.** Vessels drawing less than 15ft 6/3 foot, 15ft to 20ft 8/4 foot, over 20ft 10/5 foot. **Towage.** According to agreement, generally from £3 to £10.

BEAUFORT, S. Carolina, U.S. Lat. 32° 26' N; long. 80° 40' W. Pop. About 3,000. Tr.—I. General merchandise; E. Lumber and phosphates. Accn. Vessels of 14ft dft. can reach the town at L.W., and load to 16ft at this, or to 20ft at dock of Atlantic Mills and anchor near town. Vessels of 21ft dft. can cross the bar and ascend to within four miles of the town. **Pilotage.** See St. Helena Sound. **Towage.** About 4d to 5d reg. ton inwards, and 7½d outwards, but ships usually sail in.

BELIZE, British Honduras. Lat. 17° 29' 20' N; long. 88° 11' 53' W; this is the lat. and long. of Fort George on the N. side of the entrance to the river. Pop. Of colony about 27,500. Tr.—I. Chiefly breadstuffs, cotton manufactures, and hardware; E. Cedar, mahogany, rosewood, logwood, indigo, cochineal, sarsaparilla, cocoa-nuts, deer skins, tortoiseshells, sugar, and specie. Accn. The harb. has from 2½ to 4 fms of water, with the exception of one patch of 3 fms in the middle of the basin. The town of Belize stands on the S. mouth of the river. **Charges.** On a barque 454 tons £11 7s. Light dues 6d ton. **Pilotage.** 8/4 ft. in and out.

BENI SAF, Algeria. Lat. 35° 19' 8' N; long. 1° 20' E. Pop. 4,000. Tr.—E. Iron ore. Accn. A newly constructed commodious harbour of 45 acres. Workshop for repairing ships of all kinds. **Charges.** Port charges assimilate to those at other N. African ports. **Pilotage.** £1, in and out.

BERGEN, Norway. Lat. 60° 24' N; long. 5° 20' E. Pop. 50,000. THW. f. and c 1h 30m; Sp. rise 4ft. Tr.—I. Grains, salt, iron and coal, hardware, coffee, sugar, wines; E.

Bones, codfish, dried herrings, cod oil, skins, &c. **Accn.** There is sufficient water for largest vessels, and a side harb. at suburb "Nøstet," where men-of-war and pleasure yachts always anchor. There is a slip 150ft in length, a patent slip, and three graving docks, ranging from 197ft to 240ft in length. **Charges.** Tonnage and light dues 10½d ton, and 2% harb. money. **Pilotage.** According to size and dft., besides distance:—200 tons reg., 9ft dft., entrance money £1 2s 2d; ditto distance money 2/7 mile; 500 tons reg., 12ft dft., entrance money £1 18s 6d; ditto distance money 4/5 mile; 1,000 tons reg., 15ft dft., entrance money £2 18s; ditto distance money 5/5 mile. The pilot stations on the coast or entrance to Bergen are:—Skudsnäs 20½m., Selboe Fjord 9m., Kors Fjord 4½m., Bommel Fjord 16½m., Sholmen 8m., Fele 8m.; large vessels generally enter Kors Fjord.

BEYROOT, Syria. Lat. 33° 54' 27" N; long. 35° 29' 4" E. **Pop.** 70,000. **Tr.**—E. Cotton, silk, galls; I. Muslins, tin, hardware. **Accn.** Anchorage 10 to 12 fms, half-mile off; exposed to winds. **Charges.** Port charges on vessel of 221 tons, drawing 16½ft, about £2 3s 4d.

BILBAO, Spain. Lat. 43° 15' N; long. 2° 45' W. **Pop.** About 30,000. **THW.** 3h; Sp. rise 13ft. **Tr.**—I. Cotton and woollen manufactures, colonial produce, dried cod, coal, coke, timber, &c.; E. Iron, fruits, grain, oil, flour, ore, wine, madder, liquorice, skins, chestnuts, &c. **Accn.** The depth of water on the bar has been increased from an average of 15ft S. and 11ft N. to 22ft S. and 18ft N. Two graving docks, one 406ft and the other 230ft in length, with a depth over each of 15ft at ST. **Pilotage.** In and out, head pilot 7/8 per Sp. ft (above 50 tons every vessel is bound to take a boat) 2/1; boat from sea to Portugalete 10/5; ditto Desierto £1 0s 10d; ditto Luchana £1 6s 0½d; ditto Zorroza £1 8s 8d; ditto Olaviaga £1 11s 3d; ditto Bilbao £2 1s 8d; detention at quarantine, to pilot 2/2½; coasting pilot, if employed, west coast 3/1½; ditto east 4/2 league; shifting pilotage from Bilbao to Olaviaga 8/4; sailing ships, from Olaviaga to Zorroza 4/2; ditto from Olaviaga to Luchana 6/3; ditto from Olaviaga to Desierto 8/4; steamers, each station 8/4; if a boat is employed in shifting from one intermediate station to the other, nothing under 10/5 in addition to pilotage. **Nct** compulsory to employ a boat. **Towage.** From sea, loaded 8½d per reg ton, in ballast 7d.

BIMLIPATAM, India. Lat. 17° 53' 30" N; long. 83° 27' 10" E. **Tr.**—I. Piece goods, cotton yarn, twist, metals, spices, European provisions, and liquors; E. Seed, buffalo horns and hides, deer horns, turmeric, lac, indigo, jute, cotton, &c. **Accn.** The best anchorage in the roads is in from 6 to 7½ fms. **Charges.** Ships entering in ballast 1½d, with cargo 1½d ton. Ships landing passengers or stores pay full rate.

BLUFF HARBOUR, New Zealand.* Lat. 46° 36' 17" S; long. 168° 21' 55" E. **Pop.** 2,500. **Tr.**—E. Wool, hides, &c. **Accn.** There is sufficient water for the largest vessels, the anchorage about a mile inside the entrance being in 24ft. **Charges.** Port charges ½d ton. Foreign traders 2d per ton half-yearly. **Pilotage.** Inwards or outwards for sailing vessels, without tug 4d, with tug 3d, steamers 3d ton. Foreign traders 6d per ton half-yearly.

BOMBAY, India. Lat. $18^{\circ} 54'$ N; long. $72^{\circ} 49'$ E. Pop. 770,000. Tr.—I. Coal, iron, wines, dry goods, tea, glassware, grain, sugars, and teak; E. Wheat, seeds, cotton, opium, cloves, coffee, dates, gum, ginger, gunny bags, horns, ivory, wood, mother-of-pearl shells, and pepper. Accn. A capacious harb. from 12 to 14 miles long, from N. to S., with a general width of from 4 to 6 miles. The usual anchorage is on W. side of harbour. Extraordinary Sp. rise 18ft, ordinary 15 to 16ft; N. rise 9ft. There are eight dry docks and two patent slips. **Charges.** Port dues 1 anna per reg. ton per month; Prince's Dock dues 1 pie per ton per diem. Transporting fees are charged on the movements of the vessel. **Pilotage.** In and out of harb., for sailing vessels and steamers from 100 tons upwards, during the fair season and during the SW. monsoon; the SW. monsoon commences from June 1 and ends September 30. On merchant vessels:—

	Steamers.		Ships.	
	Fair Season.	Monsoon Season.	Fair Season.	Monsoon Season.
Minimum, 100 to 300 reg. tons..	Rs. 25.	Rs. 37.	Rs. 41.	Rs. 62.
Maximum, 2,000 to 2,200 reg. tons	Rs. 72.	Rs. 81.	Rs. 120.	Rs. 140.

And an increase of Rs. 4.2 for every 100 tons or part, on ships, and Rs. 2.8 for every 100 tons, or part, on steamers during fair season, and in addition thereto an extra rate of Rs. 20.10 on ships, and Rs. 12.6 on steamers during SW. monsoon. Transporting fees on ships:—1,500 tons and upwards, Rs. 30; 1,000 tons to 1,500 tons, Rs. 25; under 1,000 tons, Rs. 20. Steamers using their own engine: from one berth to another south of Cross Island or to or from any of the docks or to any berth north of Cross Island, or *vice versa*, Rs. 20; transporting north of Cross Island Rs. 15; sailing ships or steamers towed to or from any dock north of Cross Island from or to fixed moorings north of Cross Island will be charged Rs. 15. A pilotage fee shall be held to cover the services of a pilot for all duties connected with the movement and anchorage of a vessel for a period of at least 12 hours from the time of joining the vessel if his services are required for so long. If a pilot, after having been applied for, goes on board and the vessel is not ready to proceed to sea, or to move from one part of the harbour to another part, or to dock, as the case may be, the same day, a fee of Rs. 20 will be charged as "Pilot's attendance." When a pilot is appointed to transport a vessel into dock and it does not enter the dock the same day, if through no fault of the pilot, a second transporting fee will be charged, if the vessel is docked by the pilot on the following or on any subsequent day. For vessels (steamers) of under 1,000 tons burthen (registered) whose masters have obtained a pilot's license for the outer harbour, half pilotage fees only will be charged when the said masters pilot their steamers from or to the Sunk Rock Light. Special Pilotage for taking a vessel to Hog Island, Butcher's Island, or Nocar Point, a single pilotage fee shall be charged instead of transporting. For vessels proceeding on a trial trip a single pilotage fee shall be charged instead of transporting. Vessels arriving with gunpowder, if not moored in the harbour on the day of arrival, shall pay an attendance fee of Rs. 20. **NOTE.**—*Rupce*=1/5. **Towage.** Carija Bay £30 each way. Steamer towed will be charged at sailing ship rates.

BONA, Algiers. Lat. $36^{\circ} 53' 38''$ N; long. $7^{\circ} 46' 4''$ E. Pop. 30,000. **Tr.**—I. General merchandise and manufactures; E. Iron, copper, zinc, barley, wool, sheep, cork, tannin, and hay. **Accn.** Two ports (inner and outer). Harb. formed by two breakwaters. The inner port is provided with quays where vessels drawing 19ft can discharge. **Charges** on a vessel 600 reg. tons, £92. **Pilotage.** $1\frac{1}{2}$ d reg. ton for sailing vessels, and $\frac{3}{4}$ d for steamers each way, in and out. **Mooring cable** $9\frac{1}{2}$ d. On steamer of 600 reg. tons coming from a foreign port loaded with 1,000 tons of wood, and leaving with 1,000 tons minerals $\frac{3}{4}$ d ton, coming in, and going out 28/. **Mooring cable** $9\frac{1}{2}$ d. On sailing vessel of 300 reg. tons from a foreign port, cargo in and ballast out, in $1\frac{1}{2}$ d reg. ton, out 28/. **Mooring cable** $9\frac{1}{2}$ d.

BORDEAUX, France. Lat. $44^{\circ} 50'$ N; $0^{\circ} 34'$ W. Pop. 240,000. **THW.** 6h 50m; Sp. rise 14ft; N. rise 12 $\frac{3}{4}$ ft. **Tr.**—I. Colonial produce, wood, hides and skins, fish, cereals, wine, and spirits; E. Wine, spirits, fruit, pit-wood, chemicals, gum, fish, tissues, and jewellery. **Accn.** There are two deep places for shipping in the river, with a depth from 20 to 30ft. A safe dft. to Bordeaux is 19ft, but at ST. vessels drawing 22ft can get up. There are also several docks and building-yards; two graving docks, a floating dry dock, a patent slip, a slip railway (at Lormont), and four gridirons for careening vessels. **Charges.** Buoy dues, sailing vessels $1\frac{1}{2}$ d per ton per month, steamers $\frac{3}{4}$ d per ton for 14 days. Ballast 10d to 2/6 per ton. Tonnage dues 5d per ton from arrivals from Mediterranean and Europe, 10d per ton from all other parts. Temporary additional dues (on account of harbour works) 6d per ton on all arrivals. Coals from 20/ per ton. On a vessel of 400 reg. tons of 16ft dft., expenses about £20. **Pilotage.** Sailing ships or steamers, French or foreign. Ships proceeding to, or coming from ports between Nantes and Bayonne inclusive, 1d ton of measurement if in ballast, and 2d ton of cargo if laden. Other ports of France and ports of Algeria $1\frac{1}{2}$ d ton of measurement if in ballast, 3d ton of cargo if laden. French colonies and foreign ports $2\frac{1}{2}$ d ton of measurement if in ballast, and $4\frac{3}{4}$ d ton of cargo if laden. On vessel of 400 reg. tons drawing 16ft with cargo:—Inwards from April 1 to Sept. 30—Sea to Verdon £2 12s 7 $\frac{1}{2}$ d; Verdon to Pauillac £2 12s 7 $\frac{1}{2}$ d; Pauillac to Bordeaux £3 5s 9 $\frac{1}{2}$ d; total £8 11s 0 $\frac{1}{2}$ d. Oct. 1 to March 31—Sea to Verdon £3 19s; Verdon to Pauillac £2 12s 7 $\frac{1}{2}$ d; Pauillac to Bordeaux £3 5s 9 $\frac{1}{2}$ d; total £9 17s 5d. Outwards on same vessel £9 4s 4d. **Towage.** 6d to 7d reg. ton from Pauillac to Bordeaux. **Eng. Brokers.** T. Colombier, C. Delmestre, J. Duchon-Doris, H. Ferrière, G. Masson, R. Vandercruya.

BOSTON, U.S. Lat. $42^{\circ} 19'$ N; long. $70^{\circ} 75'$ W. Pop. About 400,000. **Tr.**—E. Grain, flour, live cattle, beef, pork, lard, fish, ice, woollens, cottons, paper, boots and shoes, cordage, hardware, furniture, apples (300,000 barrels in 1886-7), and musical instruments, the trade in organs and pianos being very large. **Accn.** Harb. is very commodious, and vessels of 24ft dft. can lie alongside the new wharves, whilst 23ft at mean LW is the least depth in the harb. channel. There are three graving docks, 165ft, 250ft, and 355ft respectively in length, three floating dry docks for vessels up to 500 tons, a patent slip railway for vessels up to 1,100 tons, and another for vessels up to 600 tons.

Charges. On a vessel of 161 tons, dft. 10ft £72 6s 6d. **Pilotage.** Foreign vessels are obliged to take the first pilot who offers his services, excepting those of 200 tons burthen or under, which having declined to take a pilot are only liable to pay half the regular fee. Vessels that have got within $1\frac{1}{2}$ miles of the outer light are not compelled to take a pilot. By law, the pilots in addition to the following rates are allowed to add 3%, which addition will be included, and must be paid with the pilotage: Inward, per foot, from May 1 to Nov. 1 from $10/1\frac{1}{2}$ to 19/, Nov. 1 to May 1, from $11/8$ to $21/1\frac{1}{2}$; outward, from May 1 to Nov. 1, from $5/10\frac{3}{4}$ to $16/11$, from Nov. 1 to May 1, from $7/2$ to $21/1\frac{1}{2}$. 25% to be added to the rates of pilotage on vessels detained in quarantine over 12 hours. All national vessels of 15ft or less dft. of water $16/11$ foot, over 15ft dft. $21/1\frac{1}{2}$ foot. The fee for hauling a vessel from the stream to a wharf (below the bridges), after the expiration of 24 hours from arrival is $16/11$, and the same amount for hauling a vessel from a wharf to the stream, provided the vessel does not proceed to sea within 24 hours from the time of anchoring. **Towage.** On a vessel of 174 reg. tons from Pernambuco with cargo of sugar, outwards in ballast, inwards £1 9s $7\frac{1}{2}$ d.

BOULOGNE, France. Lat. $50^{\circ} 44' N$; long. $1^{\circ} 35' E$. Pop. 45,916. **Tr.**—I. Coal, cast iron, steel, machinery, flax and tow, cotton, wool; E. Cement, fruits, potatoes, flour, silks, wine, brandy, eggs. **Accn.** Floating dock. On the bar at ST. about 28ft, NT. 17ft. Inside the harb. at ST. 19ft, NT. 12ft. Vessels drawing 28ft can enter dock at ST., and those drawing 22ft at NT. Owing to frequent heavy rise of sea and shifting sand-bank bearing SW. from the jetty, no greater depth can safely be counted on than $22\frac{1}{2}$ ft at ST., and $16\frac{1}{2}$ ft at NT. A gridiron 251ft long, and another 62ft long for small vessels. **Charges.** Port charges on a sailing vessel of 100 reg. tons £9 6s; on a steamer of 300 tons £15 10s 6d. Commission and brokerage 5%. **Pilotage.** Sailing vessels, in or out, loaded $2\frac{3}{4}$ d ton, in ballast $1\frac{1}{2}$ d; steamers half this charge. Vessels having more than one-third of their cargoes pay full rates. Vessels windbound or in distress pay two-thirds. **Towage.** 3d. per reg. ton. **Eng. Brokers.** G. Dewismes, G. Huret, L. Sellier.

BRAAKE, Germany. **Tr.**—I. Timber and lumber from the Baltic and United States, cedar, mahogany, coal, pig-iron, fire-bricks, slags, flint, china clay, slates, corkwood, tar, grain, hemp, and nitrate; E. Sugar, moss litter, cork, bottles, German coal, coke, steel rails, iron in bars, all kinds of machinery, tobacco, and manufactures. **Accn.** Vessels drawing 18ft can enter the harb., a good dock 800ft long, 350ft wide, provided with a lock and offering every facility for shipping. The dock has been enlarged by a side basin 700ft long, and 150ft wide. Two graving docks, 313ft and 343ft in length. This is a free port. Labour and all supplies are cheap. Ballast about $1/1$ ton. **Pilotage.** From April 16 to September 15, $11/7$ for every 3ft dft.; from February 16 to April 15, and September 16 to November 15 about $3/4$ foot; and from November 16 to February 15 about $3/4$ foot. For vessels piloted into dock, a compulsory rate is charged:—up to 90 reg. tons $3/11$, up to 120 reg. tons $4/10\frac{3}{4}$, up to 150 reg. tons $5/10\frac{1}{2}$, above 150 reg. tons $7/10$. Out of dock:—up to 90 reg. tons $2/4\frac{1}{2}$, up to 120 reg. tons $3/2\frac{1}{2}$, up to 150 reg. tons $3/11$, above 150 reg. tons $5/2$.

BREMEN, Germany. Lat. $53^{\circ} 48' N$; long. $8^{\circ} 8' E$. Pop. 115,000. THW. 1h 40m; Sp. rise 11ft. Tr.—I. Chiefly tobacco, coffee, sugar, cotton, coal, iron, petroleum, yellow metal, machinery, rice, skins, dye woods, wines, timber, hemp; E. Woollen goods, linen, glass, wheat, beans, sheep, rags, wool, oil-cake, wooden toys. Accn. Three large docks and five dry docks. Vessels of 22ft dft. can enter any one of the docks. Charges. Dock dues 2d ton per month. Expenses of vessel of 120 reg. tons, with cargo, drawing 10ft, about £8. Commission collecting freight $1\frac{1}{2}$ to 1%. Pilotage. Inwards or outwards. On a vessel of 120 reg. tons summer rate £3 6s 4d; winter rate 50% higher. Towage. Tugboats are generally obtainable some distance outside the quay buoy. Captains generally make the best bargain they can, irrespective of rates, which are, on outward-bound vessels from Bremerhaven to the lighthouse, from March 16 to November 15, $3\frac{1}{2}$ d, November 16 to March 15, $4\frac{1}{2}$ d reg. ton; for vessels from Bremerhaven to sea, from March 16 to November 15, 6d, November 16 to March 15, $7\frac{1}{2}$ d reg. ton.

BREST, France. Lat. $48^{\circ} 23' N$; long. $4^{\circ} 29' W$. Pop. 70,780. Tr.—I. Principally coal, cement, timber, hemp, flax, and guano; E. Almost confined to barley, potatoes, and farm produce. Accn. Five basins or inner harb. The outer harb. has a uniform depth of 27ft at LT. The average depth of water in the basins is—No. 1, LT. deepest part 7ft, HW. 19ft; No. 2, LT. 9ft, HW. 31ft; No. 3, the same as No. 2; No. 4, with gridiron, HW. between 10 and 12ft; No. 5, at LW. between 25 and 26ft, HW. in proportion. There are nine graving docks, owned by the Government, two gridirons, and one careening wharf. As a port of refuge Brest stands almost unrivalled in Europe. Charges. Dues on shipping 5d per ton. All goods landed pay 1d package. Quay dues 50c reg. ton. Charges on a vessel of 450 tons with cargo in and ballast out, about £25. Brokerage is heavy. Pilotage. Inwards on a vessel of 300 reg. tons landing about 450 tons of cargo, and leaving in ballast £5 8s 6d; outwards £2 8s. Eng. Brokers. A. Castagni, B. E. Corre, Denis, R. Jouve.

BRIDGEWATER, N.S. Lat. $44^{\circ} 14' N$; long. $64^{\circ} 19' W$. Tr.—E. Wood, bark, deals, and boards. Accn. The bar inside of Mosier's Island has 19ft of water at NT. and 21ft at ST. about 15 miles from entrance. Vessels can load here to 16ft; if drawing more than that they load off wharf in channel, where there are 24ft of water. Pilot necessary. Charges. Labour 5/ and stevedore 6/ day. Hospital dues 1d ton. Harb. master's fees $4\frac{1}{2}$ to 16/8. No harb. dues. Pilotage. On vessel of 888 reg. tons, 20 $\frac{1}{2}$ ft dft., up the river £3. Towage. According to size of vessel, from £1 0s 10d to £7 6s.

BRINDISI, Italy. Lat. $40^{\circ} 39' 27'' N$; long. $17^{\circ} 58' 45'' E$. Pop. About 20,000. Tr.—I. Coal, sugar, coffee, wheat, and flour; E. Olive oil, wine, and country produce. Accn. Vessels drawing 25ft can lie alongside quays; no dry dock accommodation, but the harb. is safe and large. Charges. Expenses of a steamer of 1,250 tons net reg., with a cargo of 2,200 tons of coal inwards, empty outwards, 3 to 4 days in port, about £160. Pilotage. From 15s 10d for vessels of from 1 to 100 reg. tons, to £2 19s 3d for vessels of 1,001 tons and upwards inwards. Sailing vessels pay the same outward, but steam pay half rate outward, 3s 11 $\frac{1}{2}$ d for mooring ship, and 3s 11 $\frac{1}{2}$ d to pilot-boat for assisting.

BRISBANE, Australia. Lat. $27^{\circ} 28' S$; long. $153^{\circ} 6' E$.
Pop. 51,680. **Tr.**—I. General merchandise;
 E. Coal, sheep, wool. **Accn.** Vessels of 20ft come to wharves
 with good tides. **Charges.** Wharfage 2s per ton; ballast 4s 6d;
 per ton; entering and clearing at Custom House, £2 2s. **Pilotage.**
 Above bar 6d per ton, above pilot station 5d per ton.

BRUNEI, Borneo. Lat. $4^{\circ} 52' 40'' N$; long. $114^{\circ} 55' 20'' E$.
Pop. 15,000. **Tr.**—I. (Almost entirely from
 Singapore) cotton cloths, gold thread, brassware, iron, rice,
 opium, tobacco, salt, earthenware, gunpowder, &c.; E. Sago flour,
 indiarubber, gutta percha, bees' wax, birds' nests, hides, and sharks'
 fins. **Accn.** Vessels of 20ft dft. can at H.W. safely ascend to the
 town. **Charges.** By treaty with Great Britain a duty of \$1 ton is
 leviable on British shipping in lieu of all other charges. **Pilotage.**
 No pilots obtainable.

BRUNSWICK, U.S. Lat. $43^{\circ} 55' N$; long. $69^{\circ} 57' W$.
Pop. 7,500. **Tr.**—E. Lumber, cotton, tim-
 her, naval stores, moderate shipments of staves, shingles, cross ties,
 wool, hides, tallow, &c. **Accn.** Vessels can cross the bar with 20ft
 water N.T., and 23ft S.T. Distance from bar to Brunswick 13
 miles. **Pilotage.** For St. Simon's Bar and Turtle River, foreign
 vessels not exempt by treaty with United States 50% additional.
 Varies from £2 10s 9d (bar) and £1 5s 4½ (river) to £27 9s 9½ (bar)
 and £13 14s 10½d (river), according to dft. A deduction of 20% on
 these rates made on pilotage of steam vessels. **Towage.** 7½d ton
 on loaded vessels.

BRUSSELS, Belgium. Lat. $50^{\circ} 51' N$; long. $4^{\circ} 20' E$. **Pop.**
 410,000. **Tr.**—I. Biscuits, preserved goods,
 cement, wine, timber, cheese, cotton goods, wood, &c.; E. Plate
 and window glass, iron, sugar, marble, glassware, candles, nails, &c.
Accn. Is connected with Willebroek by a canal with sufficient
 depth of water to allow vessels and steamers drawing not more
 than 10ft to come up to the city. **Charges.** No dock, wharf, or
 light dues. For a vessel of 100 tons, ballast out, £5 4s 10d.
Pilotage. From Antwerp to canal:—

Draught.	Summer.			Winter.		
	Sailing.	Towed.	Steamers.	Sailing.	Towed.	Steamers.
Abt. 5ft.	7/7	7/2½	6/2	8/9	8/4	7/7½
" 6ft 8in.	10/8½	9/11	9/6½	11/10	10/4	10/8½
" 8ft 4in.	13/10½	13/	12/2½	15/1	14/3	13/5
" 10ft	17/5½	16/8	15/6	19/3	17/10	16/8
" 11ft 8in.	20/9½	20/	18/5	22/4½	20/9½	19/7½

From entrance of canal to Brussels, 9/6½.

BUDRUM, Turkey. Lat. $37^{\circ} 1' 52'' N$; long. $27^{\circ} 27' 35'' E$.
Accn. Harb. about a quarter of a mile wide, inside
 it is well sheltered. It can take vessels of 18ft dft. The anchorage
 in the outer bay is in 11 fms.

BUENAVENTURA, U.S. Columbia. Lat. $3^{\circ} 49' 28'' N$;
 long. $77^{\circ} 10' 40'' W$. **Pop.** About
 1,100. **Tr.**—I. Salt, garlic, straw hats, hammocks; E. Cocoa, rum,

sugar, hides, tobacco. **Accn.** Vessels of 24ft dft. can reach the town. **Pilotage.** Can be obtained at Basan Point, the N. point of the entrance.

BUENOS AYRES, Argentine Republic. Lat. $34^{\circ} 36' S.$; long. $58^{\circ} 22' W.$ **Pop.** About 190,000. **Tr.**—I. Coal, iron, lumber, hardware, dry goods, wines, provisions, and manufactured goods; E. Wool, hides, tallow, horns, bones, &c. **Accn.** Buenos Ayres is situated 100 miles from the ocean, and is reached by a river 30 miles wide at the city. In front of the city are two anchorages, the inner and the outer roads, which are both open to S.E. and E. winds. Vessels discharge in the roads and at the Mole. There is a graving dock 272ft in length for vessels of large size, and also a marine railway for large vessels. **Charges.** Mole tariff, sailing vessels of 151 tons and upwards 60 cents per ton daily, lighters from the roads 10 cents, steamers half-rates, sailing vessels entering and leaving in ballast half-rates; light dues 8 cents per reg. ton, harbour dues 16/8. **Pilotage.** From the roads to the Bocca, in or out £2 16s. **Towage.** Do. £5. (See also Monte Video.)

BUNDER ABBASS, Persia. Lat. $27^{\circ} 10' 29'' N$; long. $56^{\circ} 17' 1'' E.$ **Pop.** fluctuates from 6,000 to 8,000. **Tr.**—I. Chicory, glass and glassware, metals, piece goods, spices, sugar, and tea; E. Corn, cotton, carpets, drugs, dyeing materials, dried fruits, dates, opium, silk, cloth, wool, woollen shawls, &c. **Accn.** The anchorage is in 3 fms, a mile off the town, and for a large ship in 4 to 5 fms, about 2 miles off.

BUSHIRE, or ABU-SHEHR, Persia. Lat. $28^{\circ} 59' 7'' N$; long. $50^{\circ} 50' 3'' E.$ **Pop.** About 12,000. **Tr.**—I. Coffee, candles, oil, chicory, cutlery, glass and glassware, indigo, metals, spices, piece goods, sugar, and tea; E. Corn, cotton, carpets, drugs, dyeing materials, dried fruits, dates, hides and skins, horses and mules, opium, rosewater, seeds, silk, tobacco, and wax. **Accn.** The anchorage called Outer Roads is in 4 fms about 6 miles off, with town bearing E. by N. The anchorage called Inner Roads is about $2\frac{1}{2}$ miles off town. Vessels drawing 13ft can enter these roads. **Charges.** There are no port dues. Foreigners pay 5% duty *ad valorem* on all exports and imports. **Pilotage.** To or from the outer roads about 1/1 foot dft. Pilots for Bussorah can also be obtained here. To and from Bussorah, or each time the bar is crossed, about 10/7½ft dft., and in addition about 1/1 subsistence money per day as long as the vessel remains at Bussorah.

BUSSORAH, Turkey. Lat. $30^{\circ} 29' 30'' N$; long. $47^{\circ} 34' 15'' E.$ **Pop.** 8,000. **Tr.**—I. Coal, refined sugar, metals, piece goods; E. Dates, grain, carpets, pearls, wool, cotton, gall-nuts, drugs, &c. **Accn.** Vessels drawing 18ft have ascended as far as Bussorah. 22ft on the bar at HWST., 15ft at NT. Inside the bar and as far as Bussorah the least depth in mid-channel is 24ft. **Charges.** Discharging or loading cargo costs 10d to 1/8 per ton. **Pilotage.** See Bushire.

CABARETE, Hayti. Lat. $19^{\circ} 47' N$; long. $70^{\circ} 28' W.$ **Tr.**—E. Mahogany and tobacco. **Accn.** Vessels of 400 tons can enter and anchor in 3 to 4 fms of water about two cable lengths from the shore. **Pilotage.** On a vessel of 206 reg.

tons, in and out £7 5s 10d. On a schooner of 130 reg. tons, ballast in, cargo of tobacco and mahogany out £1 19s 9d.

CABUL.—See Kurrachee.

CADIZ, Spain. Lat. $36^{\circ} 27' 45''$ N; long. $6^{\circ} 12' 16''$ W. Pop. About 70,000. **Tr.**—I. Coal, alcohol, iron, staves, timber, and colonial produce; E. Wine and salt are the staple articles of export; olives, olive oil, fruits, metals, corkwood, grain, &c., are also exported in large quantities. **Accn.** There are three graving docks, owned by the Government, 193ft, 240ft, and 344ft respectively in length, and a graving dock, 557ft long, and patent slip for vessels up to 136ft long, owned by the *Compañía Trasatlántica*. **Charges.** On a vessel of 150 reg. tons, coal in, cargo salt out, about £130. **Pilotage.** Sea to bay £1 17s 8d, bay to sea £1 14s 7d; Puntales to sea, anchoring in the bay £3 3s 9d; Puntales to sea, without anchoring £2 1s 8d; Trocadero to Puntales £1 11s 4d, Trocadero to sea, anchoring in the bay £4 15s 2d, Trocadero to sea without anchoring £4 2s 8d; Arsenal to bay £2 6s; Trocadero to bay £2 11s 1d; shifting in the bay or Puntales 16/9; Arsenal to sea, without anchoring in bay £4 7s; anchoring £4 13s 1d; ships leaving or entering the bay between sunset and sunrise £3 3s 9d. Should a vessel be hailed on entering by a pilot, and not take him, the vessel is liable to pilotage; but if she enters without being seen the pilotage is not claimed.

CAEN, France. Lat. 49° N; long. $0^{\circ} 21'$ W. Pop. 63,809. **Tr.**—I. Principally coal, pig-iron, cement, wood, coal tar, pitch, cotton, &c.; E. Wheat, barley, stone, potatoes, vegetables, cattle, oilcake. **Accn.** There is an inner wet dock, the quays extending about 1,300 yards (circular). The outer basin, newly constructed, has a length of quay of 630 yards, depth of water 16ft. Vessels of 350 to 450 tons discharge and take in cargo alongside the quay in the floating basin. **Pilotage.** On vessel of 100 reg. tons inwards (loaded) 25/; outwards (loaded) 16/10. In ballast half this rate. **Towage.** By horses for vessel of 100 tons 15/10 to 19/9; into canal 4d ton of cargo; for coal, pig-iron, cement, earth, and other goods of little value 4½d; for grain and valuable merchandise going out 2d to 3d ton; in ballast, about 15/10, according to tonnage. **Eng. Brokers.** F. Bouet, G. Pelletier, R. Pelletier.

CAGLIARI, Italy. Lat. $39^{\circ} 1' 13''$ N; long. $9^{\circ} 6' 42''$ E. Pop. 39,000. **Tr.**—I. Coal, salt, cotton, soap, &c.; E. Corn, pulse, oil, wine, and lead ore. **Accn.** Cagliari is the capital of the island, and has a harbour capable of holding about 30 vessels of medium size. Depth of water ranges from 16 to 19ft. The work of enlarging the harb. is going on, and will be finished in 1889. **Pilotage.** On schooner of 172 reg. tons cargo in and out: In and out and assistance-boat £2 2s. On screw steamer of 500 tons Sardinian admeasurement, from Spain to England with cargo of lead ore: In and out and boat assistance £2 17s 9d.

CALAIS, France. Lat. $50^{\circ} 57' 16''$ N; long. $1^{\circ} 51'$ E. Pop. 47,000. **Tr.**—I. Salt, colza oil, fish, coal, cordage, rails, cast iron, wood, woollens, cotton, machinery; E. Wines, silks, Parisian goods, machinery, &c. **Accn.** The new docks were opened in June last by the President—the works

occupying a space of over 400 acres. The tidal harb. entrance has been formed to the left of the old harb., and the floating docks lead out of the tidal harbours, and, passing by canals under the bridge leading from Calais to Saint Pierre, extend to the old works on the W. side of the town. The tidal harb. has an area of 18 acres and a minimum depth of 13ft LWST., and 29ft HWST. The W. side of the tidal basin is used for merchant vessels. There are magnificent quays and warehouses. The works will be completed in about two years. There is a careening slip in the harb. for vessels up to 500 tons. **Charges.** On vessel of 100 tons £4 15s, ballast 8d to 1s ton. Dues on a vessel of 1,222 reg. tons coming from India, America, &c., full cargo, dft. 20ft, about £12. **Pilotage.** 2½d reg. ton for loaded vessels; half for ships in ballast. Inwards from the roads on a vessel of 222 reg. tons 2½d reg. ton. Extra pilotage at sea, if taken further than 8m one-fifth. Outwards £6 4s 6d. In ballast 1½d ton. Steamers pay for pilotage, loaded or in ballast 1½d reg. ton. **Towage.** On vessel of 1,222 reg. tons coming from India, America, &c., with full cargo and drawing 20ft:—inwards, about 4d reg. ton £19 7s (1m about 4d; 1m to 3m about 6d; 3m to 6m about 7d); outwards £7 6s 6d (if a steamer up to 1,000 reg. tons about £3). **Eng. Brokers.** A. Duniagou, G. Foissey, A. Henry, A. Hobacq.

CALCUTTA, India. Lat. 22° 33' N; long. 88° 20' E. **Pop.** 683,458. **Tr.**—I. Salt, coal, iron, piece goods, cotton yarn, wearing apparel, stationery, hardware, machinery, malt liquors, wine and other spirits, petroleum, flour, tobacco, &c.; E. Cotton, rice, dye stuffs, oils, seeds, shawls, hides, spices, cutch, gunny cloths, hemp, indiarubber, jute, opium, safflower. **Accn.** Ships of 5,500 tons can ascend to city, where there is jetty and mooring accommodation. The pilots practically take vessels of any dft. up and down the river, but the maximum dft. may be called 25ft. Below Saugor it is left to the pilot's discretion whether he will pilot a vessel drawing more than 22ft of water. There are nine graving docks, running from 180ft to 352ft in length, and three dry docks of from 174ft to 192ft in length. **Charges.** Tonnage dues 6d ton. Harb. master's fees vary according to the work required of him. Hospital dues 1d. Light dues 1d ton. Stevedore 7d ton. **Pilotage.** Outwards from within the port to below Fort Gloucester 1-12ths; Hog River Obelisk 2-12ths; the Anchoring Creek 3-12ths; Diamond Harb. Telegraph Station 4-12ths; Rangafulla Obelisk (SE.) 5-12ths; Mud Point Telegraph Station (ESE.) 6-12ths; the Fairway Buoy of Bedfords or the lowermost buoy of the Auckland, if in that channel 7-12ths; the Apex Buoy of Bedfords or the A Buoy of the Western Channel, according to the channel used, 8-12ths; a line E. or W. of Saugor anchoring buoy or of the H Buoy for the western channel, 9-12ths; a line ENE. or WSW. of the lower Gaspar light-vessel for the eastern channel or WSW. of the lower eastern reef head passage buoy for the south channel, 10-12ths; a line ENE. of the Spit Buoy for the eastern channel or WSW. of the south channel reef buoy for the south channel, 11-12ths; a line drawn E. and W. of the lower reef buoy or the pilot station, full. Inwards, to within the port, exactly the same rates as above, and with the same divisions. In place of reading "To below," read "From below." Intermediate or broken pilotage is calculated by simple subtraction of the proportion leviable for the shorter distance from that chargeable to the

greater. Pilotage rates on vessels intermediate or broken pilotage :—

	Minimum, dft. 8 to 9ft. In. or Out.		Maximum, dft. 23 to 24ft. In. Out.	
	£	s. d.	£	s. d.
1-12th	0	16 8	7	5 10
2-12ths	1	13 4	14	11 8
3-12ths	2	10 0	26	17 6
4-12ths	3	6 8	29	3 4
5-12ths	4	3 4	36	9 4
6-12ths	5	0 0	43	15 0
7-12ths	5	16 8	51	0 10
8-12ths	6	13 4	58	6 8
9-12ths	7	10 0	65	12 6
10-12ths	8	6 8	72	18 4
11-12ths	9	3 4	80	4 2
Full	10	0 0	87	10 0
				56 5 0

The pilotage is divided into twelfths for the convenience of charging intermediate or broken pilotage—viz., from sea to places short of Calcutta and from and to intermediate places, as also for the purpose of the proportionate reduction (one-fourth) being made when vessels are tugged by steam any portion of the distance. **Towage.** No tariff. A written agreement is always drawn up. A vessel of 1,362 tons paid for towage from Saugor Light to town £120, and to moorings £15; towage from moorings to sea £170, which may be taken as a fair average of the usual charges.

CALDERA, Chili. Lat. 27° 5' 20" S; long. 70° 52' 45" W.

Pop. 3,000. **Tr.**—I. Coals, iron, bricks, and machinery; E. Copper and silver ores, bar silver, copper, and regulus. **Accn.** Vessels of 20ft dft. can lie alongside the wharf. **Charges.** For doing ship's business in custom-house about £14 11s 8d. **Pilotage.** From £1 9s 2d for vessels of 100 to 200 reg. tons, to £4 15s 10d for vessels of 1,000 to 2,000 reg. tons, and £5 4s 2d for vessels over 2,000 reg. tons. **Towage.** No tug-boats here, but when necessary vessels can employ whaleboats at a cost of £1 or a little more.

CALLAO, Peru. Lat. 12° 4' S; long. 77° 13' W. **Pop.**

About 32,000. **Tr.**—I. Almost every article of necessity; E. Guano, nitrate of soda, chemicals, sugar, salt, wool, cochineal, coffee, tobacco, rice, &c. **Accn.** A good mole has been erected, but it is too small for the increased demand for space by shipping. There is also a dock and a floating dry dock for the largest vessels. **Charges.** Discharging: foreign merchandise 5/10 per metric ton, coal 4/4, lumber of all descriptions 4/4; loading: all kinds of merchandise 2/11 per m.t. Dock charge 12 cents silver per reg. ton.

CALMAR, Sweden. Lat. 56° 39' 15" N; long. 16° 22' 20" E.

Pop. About 12,000. **Tr.**—I. Coals, salt, colonial produce, herrings, seeds, ivory, pig-iron, and lead; E. Deals, timber, paper, limestone, flour, and cattle. **Accn.** Inside harb. close to pier 13ft. There is a patent slip for vessels up to 300 tons. **Pilotage.** 3/2½ for 6ft dft. per four English miles, 1/7½ for every additional foot. On a vessel of 100 reg. tons, with cargo in and out, 10ft dft. 12/2½.

CANDIA, Turkey. Lat. 35° 21' N; long. 24° 01' E. **Pop.**

20,000. **Tr.**—I. Calico, cotton twist, flour, leather, sugar, rice, barley, &c.; E. Olive oil, soap, wine, raisins, &c. **Accn.** Harb. very narrow, 11 and 12ft inside where it is quite safe.

Pilotage. 10/ on entering and 10/ on clearing. Mooring expenses about £1 5s.

CANEA, Turkey. Pop. 14,000. **Tr.**—I. Calico, cotton twist, flour, leather, sugar, rice, barley, tobacco, timber, coffee, woollens, rum and spirits, iron, soda ash, codfish, herrings, jute, sacks, coals, &c.; E. Olive oil, soap, wine, carobs, raisins, oranges, valonia, cheese, &c. **Accn.** Harb. has 15ft at entrance, but 12ft only where ships moor. **Charges.** Mooring 25/ **Pilotage.** 8/ to 12/ in or out.

CANNES, France. Lat. 48° 48' N; long. 9° 11' E. Pop. about 14,000. **Tr.**—E. Perfumery, oil, and soap. **Accn.** There is 15ft of water in the harb., which is protected by a mole, and has a fine quay. **Eng. Broker.** Janot.

CANTON, China. Lat. 23° 7' 10" N; long. 113° 14' 3" E. Pop. Estimated 1,600,000. **Tr.**—I. Opium, cotton and woollen piece goods, and native imports, such as silk, tea, and cotton goods; E. Tea, silk, matting, preserves, &c. **Accn.** 13 to 17ft on the bar. Vessels of 1,000 tons can ascend as far as Canton. Almost all steamers lighten at Whampoa, about 14 miles below Canton, and all sailing vessels anchor there. **Charges.** Tonnage dues 2/ reg. ton, which include harb. light, mooring dues, &c. **Pilotage.** Whampoa to Hong Kong, or *vice versa*, 6 to 9ft dft. £2 12s 1d; 10 to 18ft dft. £5 4s 2d; 19ft dft. £6 5s; 20 to 22ft dft. £8 6s 8d. Canton to Whampoa, or *vice versa*, any dft. £2 1s 8d. **Towage.** Included in pilotage.

CAPE HAYTIEN, Hayti. Lat. 19° 46' 40" N; long. 72° 10' 42" W. Pop. About 9,000. **Tr.**—I. Lumber, provisions, fish, hardware, tobacco, and naval stores; E. Coffee, cocoa, logwood, honey, and hides. **Accn.** Vessels of 18ft dft. can approach to within three cable lengths of the town, and there is an excellent quay at which vessels drawing 15ft can discharge and load. **Charges.** On a 400 ton vessel, ballast in, cargo out £291 13s 4d. **Pilotage.** On a vessel of 400 tons, ballast in and cargo out, in and out and signal £2 18s 4d; to the Government £2 14s 2d and 20 per cent additional; to ballast ground £1 5s.

CAPE TOWN, Africa. Lat. 33° 56' 3" S; long. 18° 28' 45" E. Pop. 30,000. **Tr.**—I. Woollens, cottons, hardware, furniture, haberdashery, paper, books, tea, sugar, teak, &c.; E. Corn, wool, wine, hides, skins, horns, aloes, butter, beef, ivory, argol, dried fish, whale and seal oil, copper ore, diamonds, &c. **Accn.** Two docks or basins (inner and outer), inner entrance 100ft wide, outer entrance 200ft wide. Inner basin or dock about 10 acres, outer basin 6 acres. Inner basin 24ft at the north end, and 20ft at the south. Outer basin 20ft for large vessels, and 10ft for small. There are two jetties or piers to protect the entrance to the basins. South jetty 240ft long, 20ft broad. The other, a breakwater, is carried out to 1,860ft at HWM., with a lighthouse on the sea head. There is a dry dock 530ft in length, and a patent slip for vessels up to 1,500 tons. **Charges.** Dock dues 6d reg. ton for 21 days, and 3d ton per week afterwards, no harb. nor light dues. 4/ ton for goods landed; 2/ ton if transhipped. Coals landed 2/ ton.

CARLSHAMN, Sweden. Lat. 56° 11' N; long. 14° 52' E. Pop. About 8,000. **Tr.**—I. Tobacco, cotton, &c.; E. Iron, timber, potash, pitch, and tar. **Accn.** Small but safe harb., can receive vessels of 13ft dft. at the loading bridge.

Charges. Tonnage dues, vessels of 50 tons and upwards 1/6 ton. **Pilotage.** See Carlskrona.

CARLSKRONA, Sweden. Lat. $56^{\circ} 9\frac{1}{2}'$ N; long. $14^{\circ} 35\frac{1}{2}'$ E. **Pop.** About 19,500. **Tr.**—I. Colonial produce, salt, &c.; E. Wood, deals, sails, iron, steel, copper, pitch, granite, tar, &c. **Accn.** Has a large, good, and deep harb., 16ft to 20ft deep inside; vessels of 14ft dft. can unload direct into merchants' wharves. There are six graving docks owned by the Government, which can accommodate the largest ships. **Charges.** On vessel of 200 tons, with cargo in and out, about £15 10s. **Pilotage.** On a vessel of 12ft dft., cargo in and out, both ways £1 19s. **Towage.** Steamtug can always be obtained.

CARRIZAL, Chili. Lat. $28^{\circ} 05'$ S; long. 71° W. **Pop.** 2,000. **Tr.**—I. Coals, bricks, merchandise, &c.; E. Copper, regulus, lead in bars, and ores. **Accn.** Affords shelter for only about 6 or 8 vessels from a southerly wind. **Charges.** Hospital dues 5d per reg. ton. **Pilotage.** From £1 0s 10d for vessels under 100 reg. tons to £3 2s 6d for vessels of 500 to 600, and so in proportion.

CARTHAGENA, Spain. Lat. $37^{\circ} 36'$ N; long. $0^{\circ} 58' 42''$ W. **Pop.** About 38,000. **Tr.**—I. Coal, coke, wood, grain, and flour; E. Silver, lead, zinc and iron ores, and esparto grass. **Accn.** There is sufficient water for the largest ships. A floating dry dock for the biggest vessels. **Pilotage.** For a moderate-sized vessel 14/6 inward and outward; large vessels in proportion.

CARTHAGENA, U.S. Columbia. Lat. $10^{\circ} 18' 58''$ N; long. $75^{\circ} 35' 19''$ W. **Pop.** 10,000. **Tr.**—I. Flour, codfish, hams, butter, cheese, glassware, earthenware, ironmongery, pitch, tar, rosin, cordage, and copper; E. Gold, tobacco, cocoa, balsam, indiarubber, vegetable ivory, cedar, mahogany, hides, sugar, &c. **Accn.** Vessels of large dft. anchor in 6 fms off Pastelileo Fort. Small craft drawing 6ft lie alongside the walls of the city. **Charges.** Tonnage dues, about 3/ for every ton of cargo delivered. Light dues, 15/ for the first 100 reg. tons, and about 3d for each additional ton. Stamp charges heavy. Clearance 12/ for any-sized vessel. Sand ballast 1/6 per ton. **Pilotage.** There are very good pilots in the city and at the entrance of the port (called Bocachica). The dues are as follows, in case the vessel is taken outside Bocachica:—Steamers £2 1s 8d, barques £1 13s 4d, brigs £1 5s, schooners 16/8. When the vessel is taken at Bocachica these dues are reduced half.

CATANIA, Italy. Sicily. Lat. $37^{\circ} 28'$ N; long. $15^{\circ} 5'$ E. **Pop.** About 106,000. **Tr.**—I. Manufactures on a large scale. Colonial: Iron, coal, machinery; E. Sulphur, wheat, barley, rice, beans, maize, linseed, hempseed, oranges, lemons, almonds, shumac, and a large variety of other produce. **Accn.** A large harb., capable of accommodating, with facility and safety, the largest ships. **Charges.** Port charges for a vessel of 317 tons £15 6s 4d. **Pilotage.** Inwards: to 50 reg. tons 11/10½; 51 to 100, 19/9; 101 to 150, £1 3s 9d; 151 to 200, £1 7s 8d; 201 to 250, £1 12s 5d; 251 to 300, £1 18s; 301 and upwards, £2 3s 6d. Outwards: Half of above according to tonnage by applying to the head pilot at the Health Office. In above charges, mooring and unmooring the ship is also included.

CAUDEBEO, France. River Seine. **Eng. Broker.** Renault.

CEARA, Brazil. Lat. $3^{\circ} 42' 5''$ S; long. $38^{\circ} 27' 31''$ W. **Pop.** 35,000. **Tr.**—I. Breadstuffs, general merchandise, manufactured goods, metals, leather, wine, and machinery; E. Cotton, hides, indiarubber, sugar, &c. **Accn.** Anchorage in 4 to 5 fms. Harb. formed by a reef of rocks running parallel with the beach, and about 400yds distant. **Charges.** On a vessel of 383 tons arriving in ballast and loading cargo of cotton and indiarubber £258 5s 10d. **Pilotage.** On vessel of 383 reg. tons arriving in ballast, and loading a cargo of cotton and india-rubber, inward £2 14s, outward £2 5s.

CETTE, France. Lat. $43^{\circ} 24'$ N; long. $3^{\circ} 42'$ E. **Pop.** 37,000. **Tr.**—I. Principally coal tar, pitch, staves, wheat, oats, beans, coal, tallow, petroleum, oranges, citrons, wood, iron ore, and also large quantities of Italian, Spanish, Dalmatian, and Greek wines; E. Salt, wine, spirits, fruits, brandy, and French coal from the mining districts of the departments of Hirault, Gard, and the Centre. **Accn.** Three basins, the Old Port, the New Port, and the basin of the S.W. Ry. Co. The harbour is protected by a breakwater running E. to W., forming two entrances. Vessels drawing 21ft can enter. The old basin or port admits vessels drawing 18ft; the New Port and S.W. Ry. Co.'s basin, vessels of 17ft. There are five pontoons for heaving down vessels of 1,200 tons. **Charges.** On a vessel of 250 reg. tons about £33. **Pilotage.** 1st Line:—Six miles distance from entrance during the day, and three miles distance during the night, 3½d reg. ton. 2nd Line:—Three miles distance from the entrance during the day only, or if the vessel is taken between the first and second line by the pilot 2d reg. ton. 3rd Line:—If the vessel is taken by the pilot between the second line and the entrance, 1½d reg. ton. 4th Line:—If the vessel takes a pilot on the entrance 1½d reg. ton. Except during bad weather when the small pilot boat directs the ships by signals from the entrance, 1½d reg. ton. For every change of position 3/2 to the pilot who superintends, and the same amount in getting out of the basin. On a vessel of 254 reg. ton. from Carnarvon, with pitch, leaving for Huelva in ballast, in and out £4 19s 10d; shifting and boathire 11/10. **Towage.** On the same vessel, in £1 7s 8d, out 11/10. **Eng. Brokers.** H. Doumet, G. Frisch.

CHANAK KALEH, or DARDANELLES. Lat. $40^{\circ} 04'$ N; long. $26^{\circ} 14'$ E. **Pop.** 10,000. **Tr.**—E. Timber, wine, pottery. **Charges.** Light dues 4½d. on every ton up to 800 and half that on every additional ton. **Pilotage** to Sea of Azof from £8 to £12. **Towage** from Tenedos Island to Sestos Bay £10; to Gallipoli £12; from Cape Hellas to Sestos Bay £9; to Gallipoli £18; from White Cliffs to Sestos £6; to Gallipoli £15; from Dardanelles to Constantinople £100.

CHARLESTON, U.S. Lat. $32^{\circ} 41'$ N; long. $79^{\circ} 52'$ W. **Pop.** About 52,000. **Tr.**—I. Cottons and woollens, linens and silk, hardware, iron and steel, sugar, tea, wine, spices, salt, slate, ale, fruit from W.I., and crockery; E. Cotton, rice, hams, bacon, phosphate, rock, and naval stores. **Accn.** After passing the bar there is deep water up to wharves. Vessels of 16½ft can cross the bar at high water OST., and 15½ft at high water NT. **Charges.** On steamer of 455 tons reg., loading 827 tons of phosphate rock, about £100. **Pilotage.** Net ex. 12ft dft. £8 9s 2d;

not ex. 12½ft dft. £9 6s 1d; not ex. 13ft dft. £9 10s 3½d; not ex. 13½ft dft. £10 11s 5½d; not ex. 14ft dft. £11 8s 4½d; not ex. 14½ft dft. £12 13s 9d; not ex. 15ft dft. £14 19s 1½d; not ex. 15½ft dft. £14 11s 9½d; not ex. 16ft dft. £17 15s 3d; not ex. 16½ft dft. £21 2s 11d; not ex. 17ft dft. £25 7s 6d; not ex. 17½ft dft. £31 14s 4½d; not ex. 18ft dft. £38 1s 3d. **Towage.** On a brig of 218 reg. tons ballast in and cargo out, outwards £6 6s 10½d.

CHARLOTTETOWN, P.E.I. Lat. 45° 13' 55" N; long. 63° 70' 23" W. **Pop.** About 9,000. **Tr.**

—I. All kinds of general merchandise, coals, breadstuffs, and all kinds of ship chandlery; E. Oats, potatoes, turnips, fish, butter, lard, wood, eggs, and oysters. **Accn.** Vessels of the largest dft. can enter this harb. and ascend Hillsboro river 7 to 8 miles; vessels can anchor close alongside the wharves; Sp. rise 9ft, N. 5ft. The usual anchorage is in 42ft to 58ft of water, about 10 cable lengths from the wharves. **Charges.** On a vessel of 320 reg. tons, light dues 4d; docking 4/ day; custom fees 8/4. **Pilotage.** 2/1 to 4/2 foot. **Towage.** Inward £1 os 10d to £2 1s 8d; outward £1 os 10d to £3 2s 6d.

CHATHAM, N.B.—See Miramichi.

CHERBOURG, France. Lat. 49° 39' N; long. 1° 33' W. **Pop.** About 42,000. **Tr.**—I. Coals, timber,

cement, guano, wine, soda, gunpowder; E. Potatoes, pigs, calves, poultry, vegetables, cut stone, eggs, butter. **Accn.** Harb. and commercial non-tidal harb. Vessels drawing 17ft can enter the commercial non-tidal harb. The roads are capable of receiving the largest vessels afloat. There are eight graving docks owned by the Government, one graving dock owned by the City of Cherbourg, a gridiron, and careening quay. **Charges.** On a vessel of 100 reg. tons £6. **Pilotage.** On a vessel of 100 tons, inwards £1 3s 8d; outwards 11/10; steamers (laden) half sailing vessels, sailing vessels in ballast two-thirds of rates. **Towage.** On a vessel of 100 tons, about £1 os 10d. **Eng. Brokers.** E. Bunot, A. M. Langlois, E. Lelot.

CHICAGO, U.S. Lat. 41° 50' N; long. 88° W. **Pop.** About 550,000. **Tr.**—I. Lumber, coal, iron, and general

merchandise; E. Grain, flour, wool, beef, pork, timber, and hides. **Accn.** Vessels bound here from sea pass through St. Lawrence, the locks of which are about 43ft wide and 220ft long, with 9ft of water. There are 15ft of water in Chicago harb. There is a new canal with locks 302½ft long and 48½ft wide, and 11½ft deep. **Charges.** On vessel of 348 tons, cargo of iron and general merchandise in and grain out £170 7s 2d. **Towage.** £2 2s 3½d to £21 2s 11d according to size of vessel and distance.

CHITTAGONG, India. Lat. 22° 14' 24" N; long. 91° 50' E. **Pop.** 100,000. **Tr.**—I. Liverpool salt in

large quantities, and kerosine oil; E. Jute, rice, cotton, and tea. **Accn.** There is accommodation for 16 vessels in swinging moorings, and 3 vessels in fixed moorings. Ships of 22ft can generally cross the bar at all times. Springs rise 15ft, and in the rains 19 to 20ft. **Charges.** On a ship of 1,400 tons reg. Rs 3/3 per reg. ton, exclusive of commission on freight and towage. **Pilotage.** From £5 for vessel of 11ft dft. to £26 for vessel of 22ft dft. For every foot above 22 an additional sum of £3 4s is charged; half rates for steamers under steam, two-thirds for vessels taking the aid of steam. **Towage.** There are no regular steamtugs; but

vessels, when loaded, can always be towed to sea by one of the mail steamers, two of which leave weekly.

CHRISTIANIA, Norway. Lat. $59^{\circ} 54' N$; long. $10^{\circ} 55' E$.
Pop. 131,000. **Tr.**—I. Wood, oil cakes, ice, herrings, beer, manufactured goods, skins, ores, paper pulp, matches. **Accn.** Vessels drawing 17ft to 18ft can lie alongside quays. A graving dock 268ft in length, and a floating dry dock 195ft long. **Charges.** On vessel of 270 tons, drawing 14ft, about £46 12s. Provisions are plentiful and cheap. **Pilotage.** For taking a vessel from the ballast station, or any part within the islands, and bringing her to the anchorage designated by the harb. master and mooring her:—From 2/2 for vessels of 40 tons and under, to 9/3 from 700 to 800 tons, and 10/10 for above 800 tons. If tugboat is employed, 25 per cent. deduction. **Towage** is cheap and tugboats are always at hand.

CHRISTIANSAND, Norway. Lat. $58^{\circ} 4' 27'' N$; long. $8^{\circ} 2' 25'' E$. **Pop.** About 13,000. **Tr.**—I. Manufactured and colonial goods, grain, salt, coals; E. Timber, planks, cattle, salted fish, skins, lobsters, oak-bark, paper, &c. **Accn.** The harb. is one of the finest in Norway, with 12 fms of water close to town. A large dry dock, 320ft in length, and every facility for repairs. **Charges.** No tonnage dues, except a charge of 11d on each ton of merchandise discharged.

CHRISTIANSTED, Santa Cruz, W.I. Lat. $17^{\circ} 45' N$; long. $64^{\circ} 41' W$. **Pop.** About 25,000. **Tr.**—I. Flour, corn, meal, pork, candles, lard, timber, shingles, agricultural implements, and coals; E. Sugar, rum, and molasses. **Accn.** A coral reef runs E. and W. Water in harb. varies from 4 to 12 fms; 15 or 16ft is ordinary and safe dft. The harb. is situated in deep bay on N. side of island. **Charges.** On a vessel of 100 tons £18 5s 8d.

CHRISTIANSUND, Norway. Lat. $63^{\circ} 7' N$; long. $7^{\circ} 43' E$.
Pop. 10,000. **Tr.**—I. Grain, salt, flax, hemp, coal, iron, manufactured goods and colonial produce, bricks, tiles, &c.; E. Fish, timber, oil, tar. **Accn.** The harb. is spoken of as good and secure, and accessible to all-sized vessels. There are five slips, ranging in length from 98ft to 197ft. **Charges.** Light dues about 5d ton in and out. Tonnage dues about 10d ton. **Pilotage.** A vessel of 12ft dft. :—Inwards, from April 1 to Sept. 30, 35/6, Oct. 1 to March 31, £2 4s 6d; outwards, from April 1 to Sept. 30, 30/, Oct. 1 to March 31, 32/6.

CIVITA VECCHIA, Italy. Lat. $42^{\circ} 0' 6'' N$; long. $11^{\circ} 44' E$.
Pop. 11,980. **Tr.**—I. Coal, iron, salt provisions, wines, spirits, haberdashery, drugs, woven goods, hardware, colonial produce, jewellery, glass, earthenware, wheat, oats, and live cattle; E. Staves, alum, ore, cheese, skins, bark, rags, charcoal, Roman cement, and objects of fine arts. **Accn.** Harb. is formed by two moles, and protected by a breakwater. Vessels drawing from 20 to 21ft are moored at the breakwater to discharge into lighters till their dft. is from $17\frac{1}{2}$ to 18ft. **Charges.** Harb. dues, anchorage, &c., about same as other Italian ports. **Pilotage.** In 1½d reg. ton, out ½d ton. Vessels exceeding 1,000 tons burthen pay as 1,000. Mooring and unmooring £1.

COBIJA, Bolivia. Lat. $22^{\circ} 40' S$; long. $70^{\circ} 12' W$. **Pop.** 350. It has ceased to exist as a port of entry for foreign ships. Only a little copper is now shipped here ~~consequently~~.

COCHIN, India. Lat. $9^{\circ} 58' N$; long. $76^{\circ} 14' E$. Pop. 31,000.

Tr.—E. Rice, pepper, ginger, yams, sweet potatoes, teak, arrowroot, coffee, cotton, sugar cane, fruit, cocoanut oil, sapan wood, &c. Accn. There is only 14ft of water on bar. Charges. Port dues 3d reg. ton. Sand ballast 3/ ton. Good water 2/ 19-gallon cask. Stowing general cargo 1/ton. Pilotage. For vessels from 600 to 800 tons and upward, in and out, £5; 400 to 600, £4; 200 to 400, £3; 100 to 200, £2 10s. For the use of the anchor boat from 8 a.m. to sunset per day, £2. For the use of the hawser (besides making good any injury it may sustain) per day 10/. For transporting a vessel from one position to another, after she has been moored, of 300 tons and upwards 14/. Towage. £30 to £40 outwards.

COCKBURN SOUND.—See Swan River.

COLBERG, Germany. Lat. $54^{\circ} 11' N$; long. $15^{\circ} 34' E$.

Pop. 7,000. Accn. Average depth in the entrance 15ft. Inner harb. has only 16ft. During strong gales vessels should not attempt to enter, but keep to sea. There is good anchorage in the roadstead in 6½ to 7 fms. Ballast delivered free by Harb. Board.

COLOMBO, Ceylon. Lat. $6^{\circ} 56' N$; long. $79^{\circ} 55' E$. Pop. 120,000.

Tr.—I. Coal, manufactured goods, machinery, railway iron, hardware, and rice; E. Coffee, cinnamon, areca-nuts, cocoanut oil, coir, plumbago, arrack, tobacco, and pearls. Accn. Outer roadstead with good anchorage in 8 fms water, and inner road or harb.—mostly occupied by native coasting vessels—with good and safe anchorage for vessels drawing 11ft. A mole has been commenced, to run out from the custom-house 1,200yds N., and then NE. 400yds. Charges. Port dues 2d ton for entry inwards, and at the rate of 2d ton for clearance outwards, on all vessels arriving at or departing from this or any other port of the island. Ships' expenses vary very much according to circumstances. On a vessel of 678 tons, cargo outward only, about £160. Pilotage. Vessels of 200 tons are bound to pay pilotage. Vessels are boarded about a mile outside the shipping. The rate is 30/ for both ways.

COLON or ASPINWALL, U.S. Columbia. Lat. $9^{\circ} 22' 53'' N$; long. $79^{\circ} 52' 58'' W$.

Pop. about 3,000. Tr.—I. Coal and general cargoes; E. Ivory-nuts, cocoa-nuts, indiarubber, mother-of-pearl shells, hides, and cargoes in transit from the North and South Pacific, consisting of pearls, precious stones, silks, jewellery, teas, silver and copper ores, indigo, cochineal, coffee, cocoa, cotton, Peruvian bark, Panama hats, and general merchandise of all kinds. Accn. Vessels drawing 26ft can lie alongside the wharves. Pilotage. No fixed tariff, from £3 2s 6d to £5 4s 2d, according to size of vessel.

COLUMBIA RIVER, U.S. Lat. $46^{\circ} 16' 43'' N$; long. $124^{\circ} 40' 7'' W$. Pop. 15,000.

The depth of water on the bar varies from 17 to 24ft at mean LT. Vessels of 20ft dft. can always be loaded at Portland, which is about 110 miles from the mouth of Columbia River. Pilotage. On a vessel at Portland, in and out over the bar at the mouth of Columbia to Astoria up to 12ft £1 13s 10d foot, for each additional foot £2 2s 3½d; this is each way, in and out. From Astoria, up and down, 16/11 foot each way. Towage. On a vessel at Portland :—In and out over the bar at the mouth of the Columbia river

to Astoria £52 17s 3½d to £84 11s 8d; according to distance towed, including use of hawser in and out. From Astoria to Portland rates are made by private bargain, and range from £42 5s 10d to £116 6s for the round tow up and down.

CONCEPCION BAY, Chili. Lat. 36° 42' S; long. 73° 6'

W. Tr.—E. Wheat, hides, and tallow.

Accn. The bay, in which there is everywhere good anchorage, has three ports, Talcahuano, Penco, and Tomé. Talcahuano has a pop. of 4,500. Vessels anchor there in four to six fathoms at six to seven cable lengths from the shore. Discharging and loading are done by lighters. Repairing resources very limited owing to the absence of docks. Tomé has a jetty 50yds long. **Pilotage.** On a vessel of 750 reg. tons £2 18s 8d inwards.

CONSTANTINOPLE, Turkey. Lat. 41° N; long. 29° E.

Pop. 750,000. Tr.—I. Manufactures

of every kind of colonial produce, coals, iron, lead, copper, tin, earthenware, glass, timber, &c.; small quantities of grain arrive from Black Sea for transhipment; E. Grain, wool, cotton, box and dry woods, silk, opium, tobacco, goatskins, rags, bones, drugs, otto of roses, carpets, &c. **Accn.** The harb. is deep enough to float vessels of the largest size; safe and commodious, and is buoyed. There are four graving docks, 250ft, 290ft, 298ft, and 320ft long respectively, a floating dry dock 245ft long, and a slip 120ft in length. **Charges.** Sanitary dues, 20 paras per ton on the first 500 tons, afterwards a reduction is made; lighthouse dues, from 40 to 60 paras per ton; lightship and rocket service 20 paras per ton; Consular fees £1 10s; firman dues and anchorage 11s 4d; hospital dues 1d per ton each 4 months. **Pilotage.** From the Seven Towers to Kulëli £2; to Upper Scutari £1 15; to Maiden's Tower or European Lighthouse 10; from outside into the Golden Horn below the bridge £1; from the harb. to above the first bridge £1; to above the second bridge £2; from the Seven Towers to Buyukdere £3; to Arnaoutkeui £2; to Ortakeui £1 10s; to Sali-Bazar or Dolma-Baghtché £1 5s; from Kowak to Beicos £1 10; to Buyukdere £1 5s; to Dolma-Baghtché or to Maiden's Tower £2; shifting berth in harb. after anchoring, 10; from above first bridge to above second bridge £1. **Towage.** There is no fixed tariff in the Dardanelles. A vessel with 500 tons cargo would pay under favourable circumstances £25, but when a large number of vessels are waiting, as high as £35 for towing through the Straits. Into the harb. from outside Seraglio Point £5 for a vessel with 500 tons of cargo; from outside the Point to the Black Sea, £12.

CONSTITUCION, Chili. Lat. 35° 19' 40" S; long. 72° 16'

20" W. Pop. 10,000. Tr.—E. Bread-

stuffs are largely exported to Europe and Australia. **Accn.** The depth of water in the bar varies greatly; dry season 9ft; ordinary 11 to 13ft, and during the winter as high as 25ft. **Pilotage.** Inwards 8/4 each time for mooring and unmooring. **Towage.** By Government steamer 1/0½ ton.

COPENHAGEN, Denmark. Lat. 55° 50' N; long. 12° 34' E.

Pop. including suburbs, 330,000. Tr.—I.

Coals, iron, machinery, timber, manufactured goods, tar, flax, cement, grain; E. Flour, grain, butter, cheese, beef, pork, horses, cattle, sheep, wine, wool, hides. **Accn.** Several basins. The harb. is formed by a branch of the sound dividing the island of Amager from Zealand. From 23ft at the entrance to 18ft. On the W.

side the quays have a depth alongside from 12ft to 22ft, and on the E. side from 12ft to 18ft. The inner harb. has a depth of from 15ft to 23ft. Three graving docks, seven slips, and one floating dry dock. **Charges.** Port charges for vessel of 600 tons about £45. Tonnage dues 6d ton. Harb. dues about 5d ton. **Pilotage.** From Elsinore, about £1 18s. Into the harb. £1 1s 4d; ditto through both bridges, extra 8/10. To Dragor £1 19s 10d. Above rates from April 1 to September 30 (summer rate), from October 1 to March 31 (winter rate) about 25% higher.

COQUIMBO, Chili. Lat. 29° 56' S; long. 71° 20' W. Pop. 5,000. **Tr.**—I. Coals, iron, machinery, &c.; E. Copper in ore, ingots, bars, &c. **Accn:** The anchorage is of an average depth of 8 fms. Ships are discharged by lighters and small craft alongside the wharves. There are 3 fms of water close in shore. There is a good mole belonging to the Coquimbo Ry. Co., with 22ft water at L.T., where ships can safely moor and discharge by steam cranes. **Charges.** Hospital dues 5d ton. Collecting freight 2½ per cent; procuring ditto 5 per cent. **Pilotage.** Vessels of 100 tons £1 0s 10d, and 8/4 additional for every 100 tons up to 800, £4 7s 6d from 800 to 1,000 tons, and £5 4s 2d for all above that tonnage. **Towage.** A small steamtug can be obtained to tow vessels out when there is no wind, charge £7 to £10.

CORRALIES, Mexico. Lat. 20° 25' N; long. 105° 39' 2" W. Pop. 8,000. **Accn.** A small but very deep harb. Depth of water in middle of basin or inner harb. is about 30 fms.

CORUNNA, Spain. Lat. 43° 22' N; long. 8° 22' W. Pop. 40,000. **THW.** 3h; Sp. rise 15ft. **Tr.**—I. Coal, iron, ivory, rails, maize, sugar, tobacco, &c.; E. Oxen, potatoes, onions, fish, eggs, &c. **Accn.** It is a safe and well sheltered harb., and capable of receiving the largest vessels. **Charges.** On a schooner of 80 tons, loaded in and out, about £16 5s. **Pilotage:**—

	Tons. From 50 to 100.	Tons. From 101 to 200.	Tons. From 201 to 300.	Tons. From 300 upwards.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
From outside the shoals to the anchorage ground.....	1 5 0	1 7 6	1 15 5	2 1 8
From the lighthouse and Marola	0 18 9	1 2 9	1 7 6	1 5 5
From Cape Pradeia or Serijo Blanco.....	0 12 6	0 13 9	0 17 8½	1 0 10
Steamers of 200 tons and upwards	£1 7s 6d.			

CRAPAUD, P.E.I. Lat. 46° 12' N; long. 63° 30' W. Pop. 500. **Tr.**—I. Cottons, linens, wool, silk, tea, coffee, tobacco, oils, tar, and spirits; E. Oats, barley, buckwheat, vegetables, butter, cheese, canned lobsters, &c. **Accn.** There are three wharves with 14ft alongside at L.W., 15ft to 18ft H.W. **Charges.** Light dues 4d ton, payable once a year. **Pilotage:**—

	1st Div. s. d.	2nd Div. s. d.	3rd Div. s. d.
80 and under 125 tons	5 0½	8 4	13 6½
125 " 250 "	7 3½	9 4½	14 7
250 " 350 "	8 4	10 5	15 7½
350 " 450 "	9 4½	13 6½	17 8½

All vessels exceeding 450 tons ½d ton each way for the excess of tonnage above 450, in addition to the above rate for 450 tons. Where vessels have to be moved about the wharves and pilots retained by captains of vessels for such services, said pilot is not allowed to

charge more than 6/3 for each and every tide, to be left to the captain's option to employ pilot for such services.

CRONSTADT, Gulf of Finland. Lat. $59^{\circ} 59' 43''$ N; long. $29^{\circ} 46'$ E. Pop. 30,000. Tr.—I. Sugar, cotton, petroleum, liquors, dry goods, salt, coals, &c.; E. Lumber, hemp, tallow, canvas, leather, bristles, hides, cordage, &c. Accn. Merchants' harb. will contain over 500 vessels of any size. Only vessels with coals and pig-iron discharge here; all general cargoes go up to St. Petersburg. There are three graving docks for the largest ships of war and floating dry docks for vessels of 3,000 tons. Although the property of the Government, they are open to the public at moderate charges. Charges. On a vessel of 150 reg. tons dft. 12ft including labour £25 10s. Pilotage. On a vessel of 153 reg. tons, cargo in and out, 12ft dft., in and out £2 15s 11d. Towage. On a vessel of 153 reg. tons, cargo in and out, 12ft dft., inwards £2.

CURACOA PORT, W.I. Lat. $12^{\circ} 6'$ N; long. $68^{\circ} 20'$ W. Pop. About 20,000. Accn. Harbour about $2\frac{1}{2}$ miles in length, with 8 to 11 fms in the middle. Vessels of considerable burden can lie alongside the wharves. Charges. Port dues 100 reg. tons 4d. Light dues 2d ton. Duties on produce 10/ ton. Pilotage. In and out the harb. according to dft., being $3\frac{1}{2}$ foot for those of 200 tons and over; for entering the lagoon 3/6 foot for vessels over 100 tons.

CUXHAVEN, Germany. Lat. $53^{\circ} 52'$ N; long. $8^{\circ} 43'$ E. Pop. About 4,400. THW. 1h 8m; Sp. rise 10ft. Accn. An extensive harb., shallow, but well sheltered, except from the N., NE. and NNE. Charges. No port or harbour dues are levied, and vessels are not subjected to any formalities when entering or leaving. Pilotage. Sea pilotage from the cruisers $7\frac{1}{3}\frac{1}{2}$ per foot in the summer and $11\frac{1}{4}$ in the winter; from the galliot $4\frac{1}{11}$ summer, $7\frac{1}{3}\frac{1}{2}$ winter, with general cargo, and about $3\frac{1}{11}$ in all seasons when loaded with coals, herrings, or ballast. Towage. From Heligoland to Cuxhaven £10 to £20 according to size, and from entrance of Elbe £8 to £15.

DALHOUSIE, N.B. Tr.—E. Timber and deals. Accn. The harb. is well sheltered, and of easy access. There are two channels leading to the harb., one with 3 fms of water, and the other with 6 fms; the usual anchorage is in 6 to 7 fms, directly off the town. A pilot should be engaged. Charges. On a vessel of 199 tons, drawing $12\frac{1}{2}$ ft £42 5s. 10d. Pilotage. On a vessel of 199 tons reg., ballast in and deals out, $12\frac{1}{2}$ ft dft. loaded, in and out £5 1s 6d.

DAMAUN, Portuguese Hindustan. Lat. $20^{\circ} 25'$ N; long. $72^{\circ} 58'$ E. Pop. About 7,000. Accn. 18ft of water in the river at HT.

DANZIG, Germany. Lat. $54^{\circ} 20' 18''$ N; long. $18^{\circ} 38'$ E. Pop. 103,000. Tr.—E. Grain, linseed, timber, sugar, black beer, amber and spirits. Accn. Vessels drawing 10 to 12ft can load alongside the quays. Vessels drawing 17ft to 20ft can enter the harb. A floating dry dock, 250ft in length, and three patent slips. Charges. On a vessel of 180 tons, including stowing cargo of sleepers £34 10s. Pilotage. On steamer of 1,000 reg. tons, river pilotage: inwards, ballast or coals, outwards cargo, up $11\frac{1}{9}$, down $20\frac{1}{7}$; inwards, cargo of iron, outwards cargo, up or down $20\frac{1}{7}$; inwards, cargo of iron, outwards

ballast, up 20/7, down 11/9; inwards, coastwise from a German port, outwards cargo, up 11/9, down 20/7. On sailing vessel of 200 reg. tons, inwards ballast, outwards cargo, up 8/10, down 14/8; inwards coals, outwards cargo, up or down 14/8; inwards or outwards cargo, up or down 14/8; inwards cargo, outwards ballast, up 14/8, down 8/10. **Towage.** On sailing vessel of 200 reg. tons, inwards, ballast, coals, or cargo, outwards, cargo or ballast, up or down, 14/8. On steamer of 500 reg. tons £4 6s 6d, and on sailing vessel of 180 reg. tons £1 17s.

DARIEN, U.S. Lat. $31^{\circ} 20' N$; long. $81^{\circ} 25' W$. Pop. 2,000.

Tr.—I. General merchandise; E. Lumber and cotton.

Accn. On the bar 22ft at ST. and 17ft at NT. Vessels can load to 18ft with safety. **Charges.** On vessel of 747 tons, ballast in, cargo out, drawing 10ft in and 18ft 9in out £351 15s 3d. Commission on freight 2%. **Pilotage.** Varies according to dft. of water and distance. Minimum 6ft dft., U.S. vessels £1 13s 9d; 6ft dft., foreign vessels £2 10s 7d. Maximum, 20ft dft., U.S. vessels £20 17s 10d; 20ft dft., foreign vessels £31 6s 6d. **Towage.** On a vessel of 747 reg. tons, ballast in and cargo out, dft. 10ft in and 18ft 9in out, to sea, by agreement £37.

DENIA, Spain. Lat. $38^{\circ} 50' 40'' N$; long. $0^{\circ} 7' E$. Pop. 10,000.

Tr.—I. Timber, fuel, wheat, and flour; E.

Raisins, almonds, oranges, &c. **Accn.** Vessels not drawing over 12ft when loaded can load inside the port. **Pilotage.** £1 13s 4d in and out. Mooring and unmooring inside the port from £1 0s 10d for vessels not exceeding 60 tons to £3 6s 8d progressively for 500 reg. tons.

DIEPPE, France. Lat. $49^{\circ} 50' N$; long. $1^{\circ} 5' E$. Pop.

About 21,000. **THW.** 11h 6m; Sp. rise 27ft; N.

rise 20½ft. **Tr.**—I. Coal, iron, pitch, cement, machinery, and general goods; E. Silks, manufactures, wines, brandy, fruit, potatoes, fancy goods, &c. **Accn.** Tidal harb. and three floating basins. The basins will take vessels of 22ft ST., and 16ft at NT. The harb. will admit vessels of about 22ft at HWOST., and of about 16ft at NT. A gridiron 165ft long. **Charges.** On a vessel of 500 tons about £34. **Pilotage.** On vessel of 500 reg. tons, inwards and boat to help in £3 2s 9d; outwards and ditto £1 5s. **Towage.** On vessel of 247 reg. tons, inwards £2 9s; outwards £1 9s 3d. **Eng. Brokers.** D. Gens, C. Delarue, A. Salles, J. Teste.

DIGDEGUASH, N.B. Lat. $49^{\circ} 9' N$; long. $67^{\circ} W$. **Accn.**

There are two passages leading to harb., the

W. with 30ft at LW., and the E. with about 22ft. Anchorage safe. **Charges.** Port charges and loading expenses about 7/3½ per standard on vessels loading deals. Hospital dues 1d per ton. Harb. master 8/4 to 20/10. **Pilotage.** Summer rate 8/4 per foot in, and 6/3 out; winter rate 10/5.

DRAGOMESTRE, Greece. Lat. $38^{\circ} 33' N$; long. $21^{\circ} 6' E$.

Pop. About 9,000. **Tr.**—E. Wood, &c.

Accn. Deep water close to the shore. **Charges.** Dues and charges on a vessel of 99 tons about £5 10s. **Pilotage.** See Patras.

DRAMMEN, Norway. Lat. $59^{\circ} 45' N$; long. $10^{\circ} 12' E$.

Pop. About 30,000. **Tr.**—E. Timber of all

kinds (rough and sawn), iron, and wood pulp. **Accn.** Vessels drawing up to 20ft can enter the port.

DRANGSOUND.—See Wiborg.

DRONTHEIM, Norway. (On south bank of the Nid.) Lat.

63° 24' 27" N; long. 10° 27' 30" E. **Pop.** 24,000. **Tr.**—I. Salt, coal, spirits, grain, staves and colonial produce; E. Timber, pyrites, copper ore, chromium, and fish. **Accn.** Large and good quays for discharging, &c. Depth of water 14ft LT. A graving dock, 256ft in length, and four patent slips. **Charges.** Harb. dues 2/2 to 8/8. Harb. master's fee 2/2 to 4/4. Light dues 3½d ton, and tonnage dues 7½d ton (loaded). **Pilotage.** According to a tariff regulated to dft. of water, combined with the vessel's tonnage, and according to the distance from the shore where the pilot is taken on board. From the roads into the harb. from 4/4 to 8/8, out the same. On schooner of 178 tons reg. with cargo of salt inwards from Cette, leaving with a cargo of deals for Havre de Grace, in Aug. and Sept., 1877, from the sea £6 5s 6d, into harb. 6/, to sea (12ft) £5, out of the harb. 6/. **Towage.** Vessels of 60 tons £1 1s 8d, from 60 to 120, £1 6s, from 120 to 160, £1 15s, from 160 to 400, £2 12s, assistance-boat (if required) 8/8 to 13/.

DUNKIRK, France. Lat. 51° 2' 9" N; long. 2° 22' 37" E.

Pop. 35,000. **Tr.**—I. Coal, guano, nitrate, pig-iron, iron ore, timber, wheat, barley, oats, seeds of all sorts, petroleum, wool, jute, flax, tow, cotton, &c.; E. Coals to French ports, rails, wheat, barley, flour, bran, dried vegetables, potatoes, sugar, oil cake, oil, yarn, locomotives, ironwork, straw, and phosphate. **Accn.** An entrance canal, outer port, port in which vessels can anchor, and four docks. About 22ft ST., and 19ft at NT. There is a gridiron, patent slip, new gridiron, and several docks in construction. Dunkirk is the fourth commercial port of France. **Charges.** Dock dues about 1d ton. Town dues about 7d ton. Quay dues 4½d ton, if from Europe. Ballast 1/2 to 1/11¼ ton. **Pilotage.** Varies from 1d reg. ton to 3½d, according to distance. **Towage.** From 3d to 9d reg. ton, according to distance. Vessels under 100 reg. tons cannot pay less than £1 3s 9d. Compulsory towage due—½d, if from Great Britain, 1d reg. ton if from rest of Europe and North Africa; 1½d ton from ocean voyage. **Eng. Agent Maritime.** E. Seligman. **Eng. Brokers.** J. Alibert, P. Deboecker, L. Deman, M. Duchateau, A. Leroy, L. Parisis, G. Ladureau, E. Plaidau, D. Spiers.

EASTPORT, U.S. Lat. 45° 44' N; long. 66° 56' W. **Pop.**

About 6,000. **Tr.**—I. Salt, W. I. goods, and general merchandise; E. Lumber and fish products. **Accn.** There are 60ft of water about 30 yards from the wharves. **Charges.** On a ship of 500 reg. tons £87 10s. **Pilotage.** About 5/3¼ to 7/1 foot, according to distance. **Towage.** By agreement.

ELSINORE, Denmark. (W. side of Sound.) Lat. 56° 2' 17" N;

long. 12° 38' 2" E. **Pop.** 10,000. **Tr.**—I. Wine, spirits, coffee, sugar, salt, tobacco, and coals; E. Barley, oats, flour, meal, ship bread, butter, salt beef, pork, and rope, as supplied to calling ships. **Accn.** 21ft at the entrance and 22ft inside. There is a patent slip 267ft long, and a dry dock 320ft long. **Charges.** On vessel of 100 tons inwards with cargo £4 14s. Tonnage dues same as Copenhagen. Harb. dues, pier and quay-money about 1½d ton. Steamers coaling in the harbour pay no dues. **Pilotage.** On a vessel 100 reg. tons, inwards, with cargo, in summer (winter one-third more) 7/2; outwards in ballast 3/8. Not compulsory either way.

EMDEN, Germany. Lat. $53^{\circ} 22' N$; long. $7^{\circ} 13' E$. Pop. 14,000. Tr.—I. Timber, iron, rye; E. Corn, coals, coke. Accn. Dock one mile long, with chamber sluice 330ft long 50ft broad, and 22ft deep. Vessels of 21ft dft. will soon be able to enter harbour at HT. Charges. On vessels of 100 tons drawing 11ft, about £12 5s. Pilotage. According to dft, minimum, 17 decimetres 17/8; maximum, 52 dec. £7 12s. 7d. Towage about 2d. per ton.

ESQUIMAULT, Brit. Col. Lat. $48^{\circ} 25' 49'' N$; long. $123^{\circ} 26' 45'' W$. Accn. The usual anchorage is on the E. side of the harb. in 6 fms. It is a magnificent harb., of easy access, situated on the SE. portion of Vancouver Island. Charges. Tonnage dues 2d ton in or out. Stevedore's charges 7/6 load. Shipping master's fees. Dues and charges on a ship of 500 reg. tons £8 6s 8d. Commission on disbursements 5%. Pilotage. £1 9s 2d foot. Towage. A vessel of 1,000 tons up and down about £83 6s 8d.

EUGUA GUACU.—See Santos.

FAABORG, Denmark. (S. Coast of I. of Funen.) Lat. $55^{\circ} 5' N$; long. $10^{\circ} 16' E$. Tr.—E. Provisions. Accn. Vessels of 12ft dft. can enter the harb. Charges. Harb. dues about 3½d ton, in or out. Custom-house charges same as Svendborg.

FECAMP, France. Lat. $49^{\circ} 45' N$; long. $0^{\circ} 22' E$. Pop. About 14,000. Tr.—I. Principally coal, timber, bark, fish, &c. Accn. A tidal harb. and dock suitable for vessels of 800 tons reg. drawing 16 to 18ft. The entrance is 220ft wide. Sp. rise 31ft; N. rise 21ft. Repairs and refitting are carried on. Charges. Dues on a brig of 165 tons of 12½ft dft. about £15. Pilotage. On brig of 165 reg. tons drawing 12½ft, with cargo of deals inwards and ballast outwards: inwards £1 10; outwards 15/. Towage. On brig of 165 reg. tons drawing 12½ft with cargo of deals inwards and ballast out, in £1 12s 6d; out 19/6. Eng. Brokers. O. Donovan, Renault, Racoir.

FERROL, Spain. (Bay of Corunna.) Lat. $43^{\circ} 27' 45'' N$; long. $8^{\circ} 16' 8'' W$. Pop. 22,000. Tr.—The custom-house is open for every kind of I. except dry goods; E. Pit-props, refined petroleum, and old iron. Accn. It is one of the finest harb. in Spain, and is the chief naval station. There is a graving dock 475ft long, another for vessels up to 350 tons, and a patent slip for large vessels. Charges. On a vessel of 250 tons coal in, ballast out £55. Best Cardiff coals 25/ per ton. Charges for a vessel putting in for coal, about £8. Pilotage. Port pilotage inwards £1 13s 6d; outwards, two masts 16/9; more than two masts £1 0s 10d. The pilot of the port never goes further out than Cape Priorino. If a vessel takes a fisherman outside to pilot her to the entrance, the fees are paid according to the distance, from 8/4 to £1 5s over and above the port pilotage, which is compulsory. Every change of position in the harb., with or without the assistance of a pilot, 12/6. Vessels putting in through bad weather or in distress, only pay pilotage. Towage. There are no private tugboats, but the dockyard tug, if asked, and not otherwise busy, charges about £6 5s to tow a ship out.

FIGUEIRA, Portugal. Lat. $40^{\circ} 50' N$; long. $9^{\circ} 10' W$. Pop. 6,500. Tr.—I. Codfish, coal, iron, timber,

&c.; E. Salt, oil, wine, dried fruit, and oranges. **Accn.** No vessel drawing more than 11ft should charter for this place. **Charges.** On vessel 120 tons, ballast in and fruit out, about £15. **Pilotage.** On a vessel of 112 reg. tons, cargo in and out:—Pilot on board 2 days 10/; in and out, including mooring and unmooring, and assistance-boat £12.

FIUME, Austria. (Adriatic.) Lat. 45° 19' 15" N; long. 14° 26' 30" E. **Pop.** 20,000. **Tr.**—I. Wheat, maize, barley, olive oil, fruits, fuel, petroleum, rice, tobacco, coffee, cotton goods, and jute; E. Oak, fir, and beech staves, flour, tobacco, wine, salt, hemp, rape seed, linens, rags, grain, &c. **Accn.** A fine harb., formed by a breakwater running nearly parallel with the sea shore (*i.e.*, E. to W. by N.), and the shore quays and piers. The largest ships can lie alongside the town quays. **Charges.** 38 soldi (7d to 8d) per net reg. ton covers all the port and light dues for vessels above 400 tons. **Pilotage.** According to agreement, from £2 to £3.

FLENSBURG, Germany. (Baltic.) Lat. 54° 47' N; long. 9° 26' E. **Pop.** About 21,000. **Tr.**—I. Coal, iron, timber, grain, salt, rice, palm kernels; E. Bricks, draining tiles, oil, oilcake, spirits, rice, yeast, beer. **Accn.** 22ft to 27ft in the harb. Vessels drawing 18ft to 20ft lie alongside the quays. A large iron shipbuilding yard and patent slip. **Charges.** Harb. dues about 1d per ton. Water 11½d per 100 gall. **Pilotage.** On steamer of 644 net reg. tons, cargo of coals in and water ballast out, from Birk or Kekenis, 18ft dft., summer 42/, winter 55/6; harb. pilot, 18ft dft. and warping, summer 8/6, winter, 13/4; out, 14ft dft., summer 3/, winter 45/7. **Towage.** As per agreement.

FLUSHING, Holland. (N. side of Scheldt.) Lat. 51° 26' N; long. 3° 35' E. **Pop.** About 12,000. **Tr.**—I. Coal, coffee, sugar, rice, corn, potatoes, onions, fruits; E. Cattle, and fish, oysters, mussels, and shrimps. **Accn.** Outer harb. 22ft at LW.; difference between H and L is 12ft. Large dry dock, 243ft in length. Outer harb. is separated from inner by sluices, 279ft long, 65½ft wide, and 25ft in depth on sill with mean HW. The two inner docks have a constant depth of 25ft. **Charges.** Loading 10d to 1/ reg. ton. Vessels entering several times during the year receive a considerable reduction in harb. dues. **Pilotage.** On a vessel of 1,864 reg. tons, arriving from sea and discharging at Flushing:—From sea, say 22ft dft., summer, sailing £11 14s 4d, towed £10 19s 3d, steam £10 5s; winter sailing £16 3s 10d, towed £14 18s, steam £13 8s 4d. **Towage.** On vessel of 1,864 reg. tons, say 22ft dft., from sea into harb. £9 18s 4d.

FOOCHOWFOO, China. Lat. 26° 02' 24" N; long. 119° 25' E. **Pop.** 600,000. **Tr.**—I. Bêche-de-mer, cotton and woollen manufactures, metals, rice, sugar-candy, opium, &c.; E. Tea, paper, tobacco, woods, oranges, sugar, spices, copper, and timber. **Accn.** The anchorage used by vessels is about 9 miles below the city. A graving dock 365ft in length. **Charges.** Tonnage dues same as Canton. **Pilotage.** Between the limit of the outside pilotage ground, for all vessels 16/8 foot. Steamers from Pagoda anchorage to sea, and *vice versa*, if drawing 18ft and under £1 0s 10d foot; if drawing more than 18ft £1 5s foot. Between Sharp Peak and Pagoda anchorage, for all vessels, 8/4 foot. Between Pagoda anchorage and Foochow Bridge, for all vessels 6½ foot. For vessels in tow of steamers inside pilotage 4½ foot; outside 8¼ foot.

Towage. For coast steamers the rate is fixed by arrangement, but there is a minimum rate of £83 6s 6d for towing from Pagoda anchorage to sea. Of course if the vessel is a large one the rate is higher.

FORT DAUPHIN, Hayti. Accn. The harb. is 3 miles long E. and W., and a mile broad; has a depth of water sufficient for largest vessels. **Pilotage.** To Fort Liberté and back £2 18s 4d; pilotage and signalling, double £2 18s 4d.

FREDERICIA, Denmark. Little Belt. Lat. 55° 35' N.; long. 9° 45' E. **Tr.**—E. Corn, cattle, butter, eggs. **Accn.** Vessels of 15ft dft. can enter the harb. **Charges.** Harb., ballast, and tonnage dues same as at Horsens. **Pilotage.** From sea to harb., summer 9d, winter 1/ foot.

FREDERIKSHALD, Norway. Lat. 59° 7' N; long. 11° 24' E. **Pop.** About 12,000. **Tr.**—I. Coal and grain; E. Planed and sawn woods, timber, joinery works, iron, ice, and granite. **Accn.** An inner and outer harb., with sufficient water for a vessel of any size in outer harb. Entrance to inner harb. 14ft wide. **Charges.** Tonnage and light dues about 10½d ton. Total for a ship 300 reg. tons, with cargo in and out, about £45. **Pilotage.** According to tonnage and dft. of water combined. Winter rates, Oct. 1 to March 31, about 25 per cent. higher than summer rates. On vessel of 300 reg. tons, cargo in and out:—In, 14ft to 15ft £3; out £2 2s. **Towage.** As per agreement. On vessel of 300 reg. tons, cargo in and out, both ways, about £3 5s.

FREDERIKSHAVN, Denmark. Lat. 57° 27' 3" N; long. 10° 33' 15" E. **Pop.** 2,500. **Tr.**—I. Coals, wood, iron, and salt; E. Grain, butter, beef, cattle, and pork. **Accn.** An average depth of 14ft to 15ft close to the quays. The harb. is protected by two stone piers, in which are fixed mooring-rings and posts. When the new stone quays are finished vessels of 18ft can enter at any time. **Charges.** Port charges 1/1½ for 2½ tons of goods, discharged or taken in. Harb. dues for vessel loading or discharging 3½d ton, in and out. Charges on a vessel of 173 tons £11 5s. Expenses on steamers same as sailing vessels. **Pilotage.** Summer, April 1 to Sept. 30; winter, Oct. 1 to March 31. From the Roads, summer 4½d, winter 5½d; from the sea, summer 8½d, winter 11½d; from Hirtsholmen or within a mile of, summer 9d, winter 1/3½; to the Roads, summer 3½d, winter 4½d; to the sea, summer 6d, winter 8d; to the Roads from Hirtsholmen or the same distance, summer 7½d, winter 9½d foot. 3½d has also to be paid to the pilot-master by each vessel. **Towage.** There is no regular steamtug, but a Copenhagen salvage steamboat is stationed here, which tows in and out when required, and charges from 3d to 4d reg. ton in ordinary circumstances.

FREDERIKSTADT, Norway. Lat. 59° 12' N; long. 10° 58' E. **Pop.** 10,000. **Tr.**—I. Coals; E. All sorts of planed and sawn wood and timber, and granite. **Accn.** River runs out into two arms, forming two ports; sufficient water in both ports for any-sized vessel. **Charges.** Tonnage and light dues 11d per ton. Cargo in and out 1/10 per ton. **Pilotage.** According to tonnage and dft. of water combined. Winter rates, October 1 to March 31, about 25% higher than summer rates. On vessel of 399 reg. tons, ballast in, cargo out, in, 10ft to 11ft (summer tariff) £2 8s 9d; out, 15ft to 16ft (summer tariff) £2; harbour pilot 13/.

Towage. As per agreement. On vessel of 399 reg. ton, ballast in, cargo out, in and out £7 12s.

GAGE ROAD.—See Swan River.

GALATZ, Roumania. Lat. $45^{\circ} 24' N$; long. $28^{\circ} 24' E$. Pop. 46,000. Tr.—I. British manufactures, sugar, raisins, oil, coal, figs, iron, manufactured goods and tobacco; E. Corn, tallow, wool, masts and spars, hides, bristles, bones, maize, rye, linseed, barilla, and rape seed. Accn. A minimum depth of 15ft over the shoals has been attained. Charges. On vessel of 900 tons about £200. Pilotage. On a steamer going up with less than one-third cargo, and down with full cargo of 4,000 quarters of Indian corn, drawing 16½ft up and down £12.

GALLIPOLI, Italy. Lat. $40^{\circ} 6' N$; long. $17^{\circ} 35' E$. Pop. About 10,000. Tr.—E. Olive oil, wine, empty casks, dried figs, and olive husks. Accn. Vessels lie in 16 to 26ft of water behind a mole, which runs from W. to E. Pilotage. £1 and upwards, according to size of vessel.

GALVESTON, U.S. Lat. $29^{\circ} 16' 37'' N$; long. $94^{\circ} 49' 41'' W$. Pop. 30,000. Tr.—I. Coal, salt, coffee, ale, earthenware, iron, lumber, and other general merchandise; the foreign E. are almost entirely cotton, with some cotton seed, oak and black walnut; timber, hides, wool, tallow, bones, &c., being also exported to a large extent, but altogether coastwise. Accn. Depth of water 15 to 16ft on the bar, 24ft on the inner bar. Jetties are being constructed, and there will be deeper water shortly. Charges. There are no port charges nor wharfage on vessel. Customs duty 1/3 per ton. Total expenses are about £1 12s 6d reg. ton. Pilotage. 16/11 foot, in and out. Pilotage is usually paid inwards only, by vessels loading outside. Pilotage compulsory; if spoken, must pay half. Towage. £10 11s 5½d and £15 17s 2½d.

GASPE, Canada. Lat. $48^{\circ} 51' N$; long. $64^{\circ} 12' W$. Pop. 400. Tr.—I. All kinds of general merchandise; E. Lumber, fish, and oil. Accn. Vessels drawing 28ft can safely enter. An anchorage in 6 to 7 fms. One of the safest harb. in the Dominion of Canada. Charges. Harb. master's fees about 2/ for 50 reg. tons. Wharfage for vessel 300 tons 8/4 day. Pilotage. 4/2 foot, or according to agreement.

GEELONG, Victoria. Lat. $38^{\circ} 8' 52'' S$; long. $144^{\circ} 21' 47'' E$. Pop. about 23,000. Tr.—I. Manufactured goods of all descriptions, machinery, railway materials, liquors, wine and spirits, coal, iron, and lumber; E. Gold, live stock, hides, tallow, butter, grain, preserved meats, and wool. Accn. The new channel across the bar and up to the wharves will admit vessels drawing 18ft; by choosing a proper time of tide those drawing 20ft can pass through. Geelong is about 48 miles SW. of Melbourne. Charges. Light dues 6d ton; ballast 3/3 ton; expenses of a vessel 560 tons £20.

GEFLE, Sweden. (Gulf of Bothnia.) Lat. $60^{\circ} 40' N$; long. $17^{\circ} 7' E$. Pop. About 20,000. Tr.—I. Salt, grain, coal, &c.; E. Planks and iron. Accn. The outer harb. (5 miles from the town) will admit vessels drawing 19 to 20ft, the inner harb. vessels of 13½ft. Vessels above 20ft have to anchor at Bonan, about 8 miles from Gefle. A patent slip nearly 900ft in length. Charges. On a vessel of 250 tons £17. Pilotage. On a vessel of 250 reg. tons, from a foreign port in ballast, and bound

to a foreign port with cargo, from sea, 12ft £1 4s 2½d; to sea, 15ft £1 10s 4d; on the river, mooring vessel 3/24.

GEMLIK, Turkey. Pop. 10,000. Tr.—I. Coals, salt, &c.;

E. Olive oil, olives, chromate ore, wheat, antimony, ore, barley, salted fish barrels, sardines, &c. Accn. Harb. has about 15ft water alongside wharf Gemlik is the regular port of Brussa.

GENOA, Italy. Lat. 42° 24' 18" N; long. 8° 54' 24" E. Pop.

180,000. Tr.—I. Cotton and woollen goods, machinery, cochineal, indigo, grain, hides, sugar, coal and coke, wines, spirits, coffee, and iron; E. Olive oil, hemp, flax, rice, fruits, vermicelli, cheese, steel, velvets, silk damask, gloves, flowers, paper, soap, marble, and jewellery in silver and coral. Accn. Genoa is the chief commercial seaport of Italy, and the largest vessel can enter harb.; there are two piers. There is a graving dock 285ft long, a floating dry dock 320ft long, and a slip 246ft in length, for vessels up to 1,200 tons. Charges. Anchorage dues 1fr per ton on steamers, 80 centimes per ton on sailing vessels. Other disbursements light. Pilotage. Ships drawing 9ft and under £1 5s 4d, more than 9ft per 3ft 10/9. Outward, half above rates. Vessels with their dft. of water painted on the bows or stem pay for the highest mark, and not for what they may actually draw. Towage. As per agreement.

GEORGETOWN, Demerara. Lat. 6° 50' N; long. 58° 12' W.

Pop. 35,000. Tr.—I. Breadstuffs, provisions, lumber, shingles, shooks, slates, rice, tobacco, liquors, manufactured goods, and coal; E. sugar, rum, molasses, hardwood, timber, greenheart, old iron and copper, Wallaba shingles. Accn. Only 10ft on the bar at LW., but vessels drawing 17ft can cross it at HW. The river is navigable at HW. for vessels drawing 12ft as far as Leekie, 65 miles from the entrance. Dry dock 230ft. Charges. Tonnage dues, &c.: Vessels above 70 tons 7½d ton. Harb. master's fee 1½d ton. Expenses of a vessel of 353 tons about £45. Pilotage. From £2 10s for 10ft or under to £15 8s 4d for 20ft or under. For vessels shifting moorings in the river 12/6. Vessels arriving to try the market and not coming to an entry are exempted, unless they take a pilot. Towage. 500 tons: 16ft £20 16s 8d; 17ft £25; 17½ft £29 3s 4d, with £4 3s 4d additional for every 100 tons up to 1,000 in each case; 18ft £33 6s 8d, with £6 5s additional for every 100 tons up to 1,000; 18½ft £33 10s, with £8 6s 8d additional for every 100 tons up to 1,000. Vessels drawing 17½ft or less, or not exceeding 600 reg. tons, will only be towed as far as the chequered buoy on the outer edge of the bar. Use of steamer's warp £2 1s 8d, provided it is engaged previously to the vessel leaving.

GEORGETOWN, P.E.I. Lat. 46° 8' 47" N; long. 62° 27' 40"

W. Tr.—I. All kinds of general merchandise; E. Timber, barley, oats, potatoes, fish, &c. Accn. The harb. has 17ft to 28ft about half a mile from town, 6ft at pier-end at LW.; Sp. rise 8ft, N. 5ft; well protected from winds and has safe anchorage for 500 ships. Pilotage. Inwards 2/6 foot, outwards 1/3 foot; not compulsory.

GHENT, Belgium. Lat. 51° 3' N; long. 3° 44' E. Pop.

About 130,000. Tr.—I. Cotton, colonial produce, tin, machinery, manufactured goods, pig-iron, copper, rape seed, guano, coals, salt; E. Flax, tow, fruit, hops, marble, white lead,

refined sugar, chicory, rags, rape oil, linseed and rapeseed cake, grain, shoddy, potatoes, bark, linen, butter, flax-waste, &c. **Accn.** Bridges and sluices of the canal have a width of 40ft. Can receive into its docks vessels drawing 16ft. **Charges.** On vessel drawing 11½ft, cargo in and ballast out, £21 18s. **Pilotage.** On vessel of 200 reg. tons, 11½ft dft.; from sea to Terneusen (winter £4 15s) £4. Harb. pilotage to Terneusen 6/11; Terneusen to Ghent £1 0s 4d; Terneusen to sea, 8ft (winter £1 12s) £1 8s 6d. **Towage.** On vessel of 200 reg. tons, 11½ft dft., from Ghent to Zelzaete 7/; into Ghent dock 4/6. **Brokers.** Castellminné, De Ceunyk.

GIBRALTAR. The new Mole Head is in lat. 36° 07' 17" N; long. 5° 20' 49" W. **Pop.** About 20,000. **THW.** 1h 47m; Sp. rise 4ft; N. rise 2½ft. **Tr.**—I. Cotton, linen, woollens, hardware, coal, iron, silk, tea, tobacco, staves, coffee, grain, flour, petroleum, timber, &c.; E. Wools, lead, copper. **Accn.** Vessels of any size can anchor in the bay in 3½ to 25 fms, the only danger in entering being the Pearl Rock with 10ft water on it. **Charges.** Under 600 tons 10 c. per ton, 700 tons £2 11s each vessel, 800 tons £2 15s, 1,000 tons £3 3s, 1,500 tons £4 3s, 1,800 tons and upwards £5.

GIJON, Spain. Lat. 43° 35' N; long. 5° 57' W. **Pop.** 7,000. **Tr.**—I. Hardware, pig-iron, &c.; E. Nuts, coals, butter, and ores. **Accn.** Vessels drawing 11ft can lie alongside the quay of inner port. Tidal harb. dry at LW. **Charges.** Town dues 10d ton. **Pilotage.** Every vessel above 50 tons is compelled to take a pilot and a boat with a crew of nine men, for which the following charges are made:—From 50 to 150 tons, pilot and boat, summer £1 0s 10d, winter £1 5s; above 150 tons, summer £1 5s, winter £1 9s 2d. The pilot is compelled under a penalty to moor the vessel well and efficiently. Vessels taking coast pilots ought not to accept their services to bring the vessel to the bar before making an economical agreement, in writing, if possible, to save disputes. **Towage.** For a boat towing 3 miles, or part of that distance, in or out, from or to the bar 7½d man.

GIRGENTI, Sicily. Lat. 37° 16' 55" N; long. 13° 32' 27" E. **Pop.** 22,000. **Tr.**—I. Coals, iron, timber, sugar, coffee, spirits, rice, and petroleum; E. Sulphur in great quantities, almonds, salt, shumac, and locust beans. **Accn.** A good harbour, depth 3½ to 4½ fms. **Pilotage.** 1 to 80 reg. tons 6/4; 81 to 100, 11/10½; 101 to 200, 15/10½; 201 to 400, 19/8; 401 and upwards £1 3s 9d. If the vessel requires to be anchored outside, or to come into the harb., it has to pay full charges. If the vessel has anchored outside without a pilot, and requires the assistance of one of them to come in the harb., the full charge has to be paid. If a vessel has been anchored outside by a pilot, and afterwards comes into the harb. with the pilot's assistance, the master has to pay full charges for the anchorage, and half the charges for the assistance of coming in. If the vessel has employed a pilot in anchoring outside the roads, or coming into the harb.—going out with the pilot's assistance—only half charges have to be paid. If no pilot has been employed, and one is required, full charges have to be paid. Steamers which like to be anchored by a pilot pay 1-5th less than sailing vessels. **Towage.** From 7/11 to 19/9.

GLUCKSTADT, Germany. (Near the mouth of the Elbe.) Lat. 53° 51' N; long. 9° 20' E. **Pop.** 6,000. **Tr.**—E. Oil-cake, &c. **Accn.** 18ft of water in outer and from

14ft to 18ft in inner harb. at HT. **Charges.** Cost of lighterage between here and Hamburg 2/ ton. **Pilotage.** 11½d foot. In and out by agreement, 20/ for a vessel of 67 reg. tons.

GONAIVES, Hayti. Lat. 19° 25' 42" N; long. 72° 42' 52" W. **Pop.** About 8,000. **Tr.**—E. Mahogany, coffee, cotton, lignum vitae. **Accn.** A fine harb. Anchorage about a quarter of a mile off the shore in 3½ fms. **Pilotage.** About 20/ in or out.

GOREE, Africa. Lat. 14° 39' 55" N; long. 17° 24' 20" W. **Pop.** 5,000. **Tr.**—I. Perfumes, soaps, wines, earthen and glass ware, paper, &c.; E. Skins, gold dust, ivory, wax, gums, palm oil, &c. **Accn.** A small harb. Can receive vessels of about 10ft dft. **Pilotage.** 9½d reg. ton.

GOTHENBURG, Sweden. Lat. 57° 42' 4" N; long. 11° 57' 45" E. **Pop.** About 90,000. **Tr.**—I. Coal, iron, bacon, manufactures of silk, linen, and cotton, petroleum, machinery and implements, salt, and colonial produce, &c.; E. Iron and steel ores, wood, grain, dairy produce, cattle, paper, matches, soap, &c. **Accn.** Has two shipbuilding yards for sailing vessels, and three for steamers, two of which have patent slips, and one a dry dock. Vessels not drawing more than 16½ft go up alongside quays. **Charges.** On a vessel of 162 reg. tons about £22. **Pilotage.** When entering to Gothenburg by Winga, and *vice versa*, for vessels of 8ft dft., from 12/2½ in summer, May 1 to Sept. 30, and 15/3½ in winter, Oct. 1 to April 30, to £2 2s 10d and £2 13s 5d respectively for vessels of 22ft dft. **Towage.** No tariff, according to agreement.

GRANVILLE, France. Lat. 48° 50' 7" N; long. 1° 35' 57" W. **Pop.** About 20,000. **Tr.**—I. Coal, iron, lumber, hemp, tar, &c.; E. Eggs, salt fish, oysters, &c. **Accn.** A floating basin; Sp. rise 37ft; N. rise 27½ft; mean NT. range 17½ft; the floating basin can receive vessels of the largest tonnage. The approaches to this port are very dangerous at LW. Repairs of every kind can be effected, and shipbuilding is extensively carried on. **Charges.** Brokerage 5d ton. Dues and charges on a vessel of 151 tons of 13ft dft. £17 10s. **Pilotage.** On vessel of 151 reg. tons, coals in and ballast out, drawing 13ft, loaded, in and out £2 1s 6d. **Eng. Brokers.** C. Guillebot, J. Lemaniché.

GRAVELINES, France. Lat. 51° 0' N; long. 2° 6' E; about 12 miles SW. of Dunkirk. **Pop.** 6,000. **Tr.**—I. Coals, &c.; E. Liqueurs, timber, salt fish, &c. **Accn.** A small tidal harb., accessible to vessels of 14ft to 16ft dft.; a dock that will accommodate vessels drawing 16ft, and 33ft broad. 14ft to 16ft HWST.; 11½ft LWST. Shipbuilding is carried on, and there is a gridiron for vessels up to 250 tons. **Charges.** Harb. dues 1d ton. **Pilotage.** On a brig of 216 reg. tons, cargo in and ballast out, drawing 14ft 7in, loaded, in and out £3 17s. If the pilot be detained on board, he is paid 2/4½d day, with victuals. **Towage.** On a brig of 216 reg. tons, cargo in and ballast out, drawing 14ft 7in, loaded, three horses towing, 12/3. **Eng. Broker.** Parisis.

GREENSPOND, Newfoundland. Lat. 49° 4' N; long. 53° 33' W. **Tr.**—I. Salt provisions and general merchandise; E. Salted fish and seal oils. **Accn.** The harb., on SE. side of island, is small, and only capable of receiving vessels under 14ft dft., and rather dangerous. With

favourable weather vessels drawing 16ft may enter. **Charges.** Light dues 1/ ton. Charges for dunnage wood, labour, &c., moderate. **Pilotage.** As per agreement.

GREIFSWALD, Germany. (On the Rick, 2 miles from the Baltic.) Lat. $54^{\circ} 5' N$; long. $13^{\circ} 21' E$. Pop. 18,000. **Tr.**—E. Wheat, &c. **Accn.** Vessels drawing 11ft to 12ft can reach the harb. A slip for vessels up to 650 tons. **Charges.** Expenses on a vessel of 134 tons drawing 12ft, about £10 5s. **Pilotage.** On vessel of 134 reg. tons, ballast in, and cargo out, 12ft dft., in 30/; river pilot and two horses, in 11/3, ditto 9/; to sea 30/.

GRONINGEN, Holland. Lat. $53^{\circ} 13' N$; long. $6^{\circ} 34' E$. Pop. 50,000. **Tr.**—I. Coal, wood; E. Corn, cattle. **Accn.** Tidal harb. with depth of water on bar about 2 fms at L.W., and 3 to 4 fms at H.W. Vessels drawing 14ft can reach the port *viâ* Delfsylv. **Charges.** Harb. dues nearly $\frac{1}{4}$ d per reg. ton. Sand ballast 1/6 for two tons alongside. Brokerage outward 1%, inward 1%. Chartering commission 3%. **Pilotage.** For vessel drawing 10ft in summer £1 16s 8d, winter £2 8s 4d. **Towage.** 7d Dutch ton.

GUAYAQUIL, Ecuador. Lat. $2^{\circ} 11' 21'' S$; long. $79^{\circ} 43' W$. Pop. About 34,000. **Tr.**—I. Cottons, woollens, wines, spirits, liqueurs, groceries, soap, flour, lard, metals, ironware, earthenware, linens, and stationery; E. Cocoa, cotton, coffee, straw hats, timber, bark, hides, tobacco (annual value £1,250,000), ivory, nuts, canes, sarsaparilla, and indiarubber. **Accn.** Vessels drawing 22ft can reach the city. **Charges.** Wharfage: vessels of 100 tons, £1 13s 4d per day; 8/4 extra upon every 100 tons up to 400 tons, and 12/6 for every 100 tons above 400. **Pilotage.** From Puna 8/4 foot; out to Punta Arenas 10/5 foot.

HALIFAX, N.S. Lat. $44^{\circ} 39' 38'' N$; long. $63^{\circ} 35' 10'' W$. Pop. 40,000. **Tr.**—I. Colonial produce, manufactured goods, &c.; E. Dried and pickled fish, lumber, coals, flour, butter, oats, potatoes, gypsum, deals, oils, furs, &c. **Accn.** Harb. is one of the finest in America, can be entered by the largest vessels, and is seldom closed by ice. There are numerous wharves alongside which vessels load and discharge their cargoes in from 10 to 15 fms. Tides rise Sp. 8ft; N. 6ft. **Charges.** Labour 7½d to 10d per hour. Stone ballast 1/8 ton. Water ½d per gall. Commission on disbursements and freights 2½%. **Pilotage.** Under 200 tons in, £1 13s 4d, out, £1 0s 10d; 200 to 300 in, £2 5s 10d, out, £1 9s 2d; 300 to 400 in, £2 18s 4d, out, £1 17s 6d; 400 to 500 in, £3 6s 8d, out, £2 1s 8d; 500 to 600 in, £3 15s, out, £2 5s 10d; over 600 tons 2/1 inwards, and 1/6½ outwards additional for every 100 tons. Outward pilotage for all vessels of 200 tons and upwards is compulsory. **Towage.** From Chibucto Head, £4 5s 4d to £8 10s 8d, as agreed upon, or £2 1s 8d hour.

HAMBURG, Germany. (On the Elbe.) Lat. $58^{\circ} 32' N$; long. $9^{\circ} 58' E$. Pop. About 520,000. **THW.** 6h. **Tr.**—I. Coffee, cocoa, rice, sugar, coals, cotton, wool, manufactured goods, machinery, guano, saltpetre, &c.; E. Manufactured goods, salt, sugar, cattle, dairy produce, wines, spirits, &c. **Accn.** Depth varies. Vessels of 20ft dft. can ascend at H.W. Now that the new harbour works, costing £6,000,000, are completed, the dredgers employed at the works will be released.

to further deepen the bar at Blankenese, and Hamburg will then be the greatest harbour on the Continent. **Charges**, 10pf (about 5 farthings) per cubic metre. **Pilotage**. In winter, from Oct. 1 to Mar. 31, from sea to Gluckstadt or Bosch $11\frac{1}{4}\frac{1}{2}$ per H.ft. From April 1 to Sept. 30, $7\frac{1}{4}\frac{1}{2}$. Vessels remaining at Cuxhaven, the charges are $9\frac{1}{5}\frac{1}{2}$ and $6\frac{1}{3}\frac{1}{2}$ respectively per foot. **Towage**. Per agreement. Vessels of 1,000 tons are usually charged £25 to £30 from the lightship to Hamburg, and from Gluckstadt to Hamburg about £10.

HANGO, Russia. (Gulf of Finland.) Lat. $59^{\circ} 46' N$; long. $22^{\circ} 58' 8'' E$. **Accn.** Harb. has 40ft to 50ft of water, 40ft alongside mole, which runs 150yds into the harb., which the largest ships can enter. There are sheds and other conveniences for handling cargo. No port charges.

HANKOW, China. Lat. $30^{\circ} 50' N$; long. $114^{\circ} 0' E$. **Pop.** Estimated at 600,000. **Tr.**—I. Piece goods, opium, lead, quicksilver, tin, silk piece goods, medicines, cuttle-fish, sugar, cotton; E. Tea, oil, raw silk, cotton, rhubarb, tobacco, paper, tallow, varnish, coal, charcoal, fungus, gypsum, hemp, lotus seeds, nankeens, planks, timber, opium, safflower. **Accn.** In winter it is not accessible to vessels drawing over 12ft; not always to those drawing over 9ft; but in the summer the largest vessels come here. Hankow is 600 miles from the sea. **Charges.** About the same as Canton.

HARLINGEN, Holland. (On the Zuyder Zee.) Lat. $53^{\circ} 11' N$; long. $5^{\circ} 25' E$. **Pop.** 10,500. **Tr.**—Principal I are salt, coals, raisins, soda, &c., from England, timber from Norway, wheat, linseed, hemp, tar, potash, from the Baltic, buckwheat from France; E. Butter, cheese, flax, cattle, grain, and chicory—all to England. **Accn.** Ships drawing 14 to 15ft may cross the bar at HT in ordinary circumstances. **Charges:** On a vessel of 136 tons, £17 1s. **Pilotage.** Inwards from sea to Harlingen, minimum 5ft, summer 9/, winter $11\frac{1}{3}\frac{1}{2}d$ maximum 15ft, summer 33 3s 4d, winter £4 6s 3d. Outwards from Harlingen to sea, minimum 5ft, summer 7/, winter $8\frac{1}{3}$; maximum 15ft, summer £2, winter £2 4s. On vessels of 200 reg. tons, with cargo 11ft dft, entering the Vlie in summer £3 7s 4d, winter £4 4s 3d; entering the Texel in summer £3 17s, winter £9 16s 6d. **Towage.** Harlingen to Blaauwe Sleuk $1\frac{1}{2}d$, ditto Vlie $2\frac{1}{2}d$, ditto to Uiterdon Storte Melk $3\frac{1}{2}d$, sea to Harlingen 4d ton.

HAVANA, Cuba, W.I. Lat. $23^{\circ} 8' 15'' N$; long. $82^{\circ} 22' 45'' W$. **Pop.** 202,000. **Tr.**—I. Breadstuffs, provisions, petroleum, and cooperage stock; E. Sugar, molasses, tobacco, coffee. **Accn.** Vessels of largest dft. can lie close to the quays, bow on. **Charges.** On a ship 353 tons, with sugar home £307. **Pilotage.** On a vessel of 353 reg. tons from Liverpool with piece goods, and outwards for Falmouth with 2,200 boxes of sugar, £10 8s 4d.

HAVRE, France. (Mouth of the Seine.) Lat. $49^{\circ} 29' N$; long. $0^{\circ} 6' E$. **Pop.** About 112,000. **THW.** 9h 18m. Sp. rise 22ft; N. rise 18ft. **Tr.**—I. Chiefly cotton, wool, silk, coffee, rice, sugar, tobacco, flour, grain, petroleum, hemp, hides and skins, tea, indigo, coals, iron, ashes, tallow, saltpetre, seeds, timber, and provisions; E. Principally silk, cotton, and woollen manufactures, laces, gloves, cordials, wines, brandies, drugs, dyes, perfumery, leather, preserved fruit, glassware, trinkets, and all the fancy articles

manufactured in and around the French capital. **Accn.** A basin or outer harb., 5 outer docks, including a small half-tide basin, communicating with the former by tidal gates, and 4 inner docks; the largest tidal gate has a uniform width of 100ft; the depth of water in the basin is 32ft 2in at ST., and 25ft 7in at NT. The 9th dock, or Bassin Bellot, is now in use. The canal to Tancarville, with a depth of 11ft 4in, was opened in June, 1887. Havre is the largest of the French ports in the English Channel. **Charges.** On a vessel of 500 tons with coals from England £28 4s 10d. **Pilotage.** Inwards:—1st, ordinary pilotage (£1 0s 9d 100 reg. tons) within 20 miles of Cape La Heve; 2nd one-third more beyond 20 miles and within 40 miles; 3rd, one-half more beyond 40 miles; 4th, one-half of ordinary pilotage from the small roads; and 5th, one-third of same inside the north pier. In ballast one-half of ordinary rates. Windbound vessels, either in ballast or loaded, one-half of ordinary rates. Steamers are always considered as loaded vessels, but they pay only one-half of the rates stipulated for sailing vessels of same reg. tonnage. Vessels under 80 tons are exempt from pilotage unless they ask for a pilot. Outwards:—1st, one-half of the inward pilotage, if the vessel is fully or partly loaded; and 2nd, one-third of same if she is in ballast or windbound. Should the pilots be required to go as far as the outlying banks, they receive an additional sum of 2/4d, and should they consent to take vessels further, their fees are to be fixed by mutual agreement. An allowance of 1½ per cent. is charged upon all pilotage rates, in behalf of the head pilot. **Eng. Brokers.** E. Billard, A. Farcis, V. Franque, M. Taconet. F. Bernal, Eng. Consul-General.

HELSINGBORG, Sweden. (On the Sound.) Lat. 56° 4' N; long. 12° 49' E. **Pop.** 16,500. **Tr.**—I. Colonial produce, iron, coals, manures, &c.; E. Oats, barley, wheat, oxen, pigs, sheep, butter, cheese, meat, and timber. **Accn.** Excellent harb. with 19ft of water, containing dry dock (276 × 44 × 16), shipbuilding yard, &c. On the north of the present harb. a new one with 22ft of water will be opened in 1890. **Charges.** On steamer of 500 reg. tons, cargo in and out, £35, which does not include stevedore's fee. **Pilotage.** On a brig of 129 reg. tons, 11ft dft., cargo in and out £1 4s 5½d; on a vessel of 200 reg. tons, with cargo in and out, in, about £1 7s 1½d.

HELSINGFORS, Russia, (Finland.) Lat. 60° 9' 42" N; long. 24° 57' 47" E. **Pop.** 33,000. **Tr.**—I. Salt, colonial produce, &c.; E. Corn, fish, logs, deals, &c. **Accn.** The largest ships can enter the harb. Vessels drawing 14ft lie alongside quays. Repairing yards. **Pilotage.** Grahara to the roads and *vice versa* (summer), from £1 13s 4d for vessels of 9ft to £3 8s 7d for vessels of 18ft dft. Porkkala to the roads and *vice versa* (summer) from £3 9s 7d for vessels of 9ft to £7 16s 7d for vessels of 18ft dft. Winter rates 25 per cent. higher, commencing September 15 and ending May 15. **Towage.** Moderate, and boats always obtainable; ships find cables and ropes when being towed.

HEPPENS, Germany. **Accn.** 7ft at NT., and 10ft at ST. Harb. only suitable for small vessels. A dock is in course of construction, which will be capable of receiving vessels of much larger dft. **Pilotage.** On vessel of 171 reg. tons, coals in, 13ft dft., out in ballast; in and out of harb. 7/6.

HERNOSAND, Sweden. (Gulf of Bothnia,) Lat. $62^{\circ} 36' N$; long. $17^{\circ} 20' E$. Pop. 5,600. Tr.—I. Colonial produce, salt, brandy, coals, coke, iron, wine, canvas, cordage, &c.; E. Timber, deals, battens, boards, ore, spars, iron, and tar. **Accn.** Vessels of any size can enter the harb., which is one of the best in North Sweden. **Charges.** On a vessel 278 tons loading lumber £19 13s 10½d. **Pilotage.** On a vessel of 425 tons, ballast in and cargo out, 14ft in and 18ft out, in, Herno to Hernosand 19/0½; out, Hernosand to Herno 24/4. **Towage.** On a vessel of 425 tons, ballast in and cargo out, 14ft in and 18ft out, in, £2 2s 6d; out, £1 11s 10½d, as per agreement.

HIOGO, Japan. Lat. $34^{\circ} 40' N$; long. $135^{\circ} 14' E$. Pop. 40,000. Tr.—I. Manufactured goods, coals, and metals; E. Tea, rice, timber, tobacco. **Accn.** Very safe harbour, depth from 4 to 10 fms; two graving docks for vessels of 500 tons. **Charges.** Only customs fee £4 3s 4d. Disbursement of vessel of 1,100 tons £127 1s 8d. **Pilotage.** 12/6 in and 6/3 out.

HOBART TOWN, Tasmania. Lat. $42^{\circ} 53' 32'' S$; long. $147^{\circ} 22' 24'' E$. Pop. 20,000. Tr.—I. Manufactured goods, tools, tea, sugar, stores, &c.; E. Wool, grain, hops, sperm oil, timber, vegetables and fruits. **Accn.** The anchorage is good anywhere off the town in 9 to 12 fms. Patent slip. **Charges.** Discharging general cargo 1/ ton; ballast 1/6 ton; water 2/ ton; harb. master's fees 1d ton; light dues 6d ton. Port charges on a barque 321 reg. tons, cargo in and ballast out £22 3s 3d. **Pilotage.** Sailing vessels 9d reg. ton. The payment of pilotage inwards is compulsory, but vessels can leave without a pilot; steamers 6d ton. Pilots detained on board vessels in quarantine or otherwise delayed, 15/ per day in addition to the usual charges. The rate now shall be reduced one-half, whenever it can be proved to the Marine Board that no pilot offered himself to the vessel entering the port until such vessel had reached a line drawn from the S. point of Half-Moon Bay to Pearson's Point.

HONFLEUR, France. (At S. side of Estuary of River Seine.) Lat. $49^{\circ} 26' N$; long. $0^{\circ} 12' E$. Pop. 10,000. Tr.—I. Wood from Norway, Sweden, Canada, and Germany, coals, pig-iron, cement, hemp, oats, seeds, and marble; E. Flour, barley, wheat, rye-grass, butter, eggs, oilcake, rape seed oil, acids, cattle, poultry, fruits, and vegetables. **Accn.** Four floating basins and one tidal harb. The entrance of the port is formed by a long wooden pier added to an old stone pier on the west, and the side of the sluice dock on the east. The harb. is supplied with powerful flood machinery, which has secured a channel deep and easy of access. Facilities for heaving down vessels, and spacious building-yards. **Charges.** Port dues 1/6 ton. **Pilotage.** Main roads to Honfleur or to the Hoe 26 fr per 100 tons reg. Outwards, two-thirds of that sum with cargo, one-half in ballast.—Frank Lethbridge, Eng. V.C. H. Hardy, American Consular Agent. Eng. Brokers.—A. Bicheray, A. Blavit, Bunout, G. Ollivier.

HONG KONG, China. Lat. $22^{\circ} 16' 27'' N$; long. $114^{\circ} 10' 48'' E$. Pop. 120,000. Tr.—I. Coal, iron, hardware, cotton and woollen goods, liquors, petroleum, opium, sulphur, and dye woods, &c.; E. Tea, rice, camphor, silks, cassia, lignea, and other Chinese produce. **Accn.** The inner anchorage in Victoria Bay is 6 to 7 fms deep, and about half a mile off the shore. Victoria Town is considered the capital of the island. Six graving docks

and two slips. **Charges.** On a vessel of 1,396 tons, cargo in and out £230 10s 10d. **Pilotage.** £3 2s 6d in, and same out, irrespective of size of vessel or dft. **Towage.** On vessel of 1,396 reg. tons, in and out, from inside limits to Wanchu £8 6s 8d.

HONOLULU, Sandwich Islands. Lat. 21° 17' N; long. 157° 55' W. Pop. 25,000. **Tr.**—I. Coal, manufactured goods, &c.; E. Sugar, wool, cotton, coffee, oranges, rice, hides, tallow, molasses, &c. **Accn.** Harb. has 22ft water on the bar at L.T.; the principal port of the island of Oahu. There is a marine railway for vessels up to 1,700 tons. **Charges.** Light-house dues 12/6. Harb. master's fees for mooring 12/6. Wharfage 1d ton per day. Clearance 4/2. **Pilotage.** Anchoring outside harbour, £3 2s 6d; do. without aid of pilot, £1 0s 10d. **Towage.** Barques and ships under 500 tons, £8 6s 8d; and additional £1 0s 10d for every additional 500 tons.

HORSENS, Denmark. (On the Cattegat.) Lat. 55° 52' N; long. 9° 50' E. Pop. 13,000. **Tr.**—E. Corn, tallow, bones, butter, eggs, and cattle. **Accn.** 13ft in the harb. **Charges.** Harb. dues 13d ton, in and out. Tonnage dues 63d reg. ton. Brokerage as per agreement. Charges on a vessel of 132 tons of 12ft dft. £11. **Pilotage.** From Hiorno, summer 1/2½, winter 1/7½ foot; double from Endilave. **Towage.** To and from the roads 3½d reg. ton.

HORTA, Azores. Lat. 38° 31' 45" N; long. 26° 36' 24" W. **Tr.**—I. Lumber, stores, coals, manufactured goods, and oil; E. Fruit and wine. **Accn.** Anchorage in 14 to 20 fms. A breakwater has been constructed. Horta Bay is at the SE. end of the island of Fayal.

HUELVA, Spain. Lat. 37° 18' N; long. 6° 52' W. Pop. 16,000. **Tr.**—I. Coal and coke, iron, &c.; E. Ore, wine, cork, &c. **Accn.** Vessels drawing 17ft can cross the bar; 16 to 20ft at L.W. near the town. **Charges.** On steamer of 1,000 tons burthen, coal in, ore out, £123 19s 8d; on sailing vessel of 300 tons burthen, ditto, £34 9s 8d. **Pilotage.** Sea to anchorage, 1 mast £1 8s 1d; 2 masts £1 14s 4d; 3 masts £2 0s 8d; moving to and from any part in the harb., 1 mast 14/0½; 2 masts 17/2; 3 masts £1 0s 4d. Anchorage to sea same rates.

IQUIQUE, Peru. Lat. 20° 13' S; long. 70° 13' W. Pop. 14,500. **Tr.**—I. Railway material, machinery, and manufactured goods; E. Nitrate of soda, copper ore, and borax. **Accn.** There is good anchorage in 11 fms, but landing is dangerous. The shipping and discharging of cargoes are performed by launches. Facilities for coaling are good. No resources for repairing vessels at this port. **Charges.** Tonnage dues 1/0½ ton. Anchorage dues 33/4 per vessel, but if to finish cargo at another port 25/. Captain of the port £6 6s. Lighterage 4/2 ton. **Towage.** £4. Mooring £3 to £4. **Pilotage.** There are no regular pilots. The Captain of the Port (who receives £6 6s) should be the first on board to direct the ship to her anchorage.

JAFFA, Syria. Lat. 32° 3' 14" N; long. 34° 44' 45" E. Pop. 22,000. **Tr.**—I. Cotton goods, dry goods, and hardware. E. Wheat, barley, wool, and fruit. **Accn.** Anchorage in 8 fms summer, and 10 or 11 fms in winter. Unsafe in winter. **Charges.** Light dues about 2½d per ton under 800 tons, half for every ton in excess. Labourage from 2/ to 2/6 per day. Disbursements of a steamer of 750 tons with cargo of grain to Marseilles £16 3s 6d. No pilotage.

JEDDAH, Red Sea. Lat. $21^{\circ} 28' N$; long. $39^{\circ} 13' E$. Pop. 22,000. **Tr.**—I. Corn, rice, butter, tobacco, musk, gold, civet, incense, Manchester piece goods, and from Egypt and Abyssinia, manufactures from India, and slaves from the Malay Archipelago; E. Coffee, coral, Egyptian cotton goods, sword blades, matchlocks, cutlery, hardwares, mirrors, leather, dates and balsam. **Accn.** The portion of the harb. occupied by vessels is two miles in length, half a mile in its greatest breadth, narrowing in certain places to 300yds. The harb. has a depth of from 3 to 17 fms. Jeddah is the port of Mecca.

JORDAN RIVER, N.S. Lat. $43^{\circ} 40' N$; long. $65^{\circ} 12' W$. **Tr.**—E. Deals. **Accn.** Considered a safe place in the summer for vessels of 16ft dft. A breakwater has been built; it has 15ft at L.T., bottom soft mud. **Pilotage.** No regular pilots.

KARREBEK, Denmark. Lat. $55^{\circ} 11' N$; long. $11^{\circ} 39' E$. **Accn.** about 12ft inside the piers. **Charges.** Expenses of a vessel of 45 reg. tons, cargo in and out, including pilotage £3 5s. Tonnage dues 3/. Harb. dues about 8d. **Pilotage.** Inwards, about 9½ ton.

KERTCH, Russia. Lat. $45^{\circ} 15' N$; long. $36^{\circ} 24' E$. Pop. About 41,000. **Tr.**—I. Sugar, coffee, olive oil, preserved fruits, wines, tobacco, cotton and silk goods; E. Wheat, barley, linseed, fish, caviare, wool, hides, and salt. **Accn.** On the bar of Yenikale there is 16 to 18ft of water. **Pilotage.** £1 6s for the voyage up and down over the Yenikale bars.

KIEL, Germany. Lat. $54^{\circ} 19' N$; long. $10^{\circ} 8' E$. Pop. About 56,000. **Tr.**—I. Coals, Indian corn, timber; E. Grain, flour, timber. **Accn.** Two floating docks; two iron shipbuilding yards. **Charges.** On a ship of 270 tons, including ballast, about £16. The eastern entrance of the canal between the Baltic and North Sea will be in Kiel Bay. **Pilotage.** During summer 1/5, winter 1/10 per foot.

KINGSTON, Jamaica. Lat. $18^{\circ} 01' N$; long. $76^{\circ} 48' W$. Pop. 40,000. **Tr.**—I. Manufactured goods, wheat, flour, salted provisions, manufactured and leaf tobacco; E. Rum, sugar, coffee, dyewoods, hides, cigars, Pimento fruit (chiefly pineapples, bananas, oranges, and mangoes.) **Accn.** Vessels of large dft. lie alongside of wharves of town, above which water deepens to 9 fms; the harb. is a large and spacious inlet running east and west, and is capable of containing any number of vessels of large size. It is an important coal depôt for steamers. **Charges.** Light dues 5d ton for sailing vessels, steamers, ¾d. Vessels trading between the tropics, under 10ft dft. 7/6, beyond tropics 15/, 10ft and under 12ft 10/ and £1, 12ft and under 15ft 15/ and £1 10s, 15ft and under 20ft 17/6 and £1 15s, 20ft and upwards £1 and £2 respectively. **Pilotage.** 150 tons £4; 200, £5; 250, £6; 350, £7; 500, £8; 800, £9; over 800 tons £10.

KONIGSBERG, Germany. Lat. $54^{\circ} 42' N$; long. $20^{\circ} 29' E$. Pop. 150,000. **Tr.**—I. Colonial produce, tea, herrings, iron, steel, tin, and tin plates, wines, coal, salt; E. Wheat, rye, barley, peas, oats, tares, hemp, linseed, rapeseed, flax, timber, linens, oilcake, oil, bristles, refined sugar, bones, mats, feathers, wax, hides, skins. **Accn.** Vessels of 2,000 reg. tons come here. **Charges.** Harb. dues with cargo inward or outward, about ¾d ton; with ballast inward or outward, about ¼d ton.

Vessels of less than 60 tons pay half. **Pilotage.** From and to Pillau, Königsberg, or *vice versa*, from 10/ vessel upwards according to size. Vessels under 9ft dft. are not bound to take a pilot. Masters of regular steam traders may act as pilot of their own vessels, after passing an examination at Pillau. No charge for pilotage from sea to Pillau.

KUCHING.—See Sarawak.

KURRACHEE, India. Lighthouse on Manora Point is in lat. $24^{\circ} 47' 50''$ N; long. $66^{\circ} 58' 15''$ E. **Pop.** 35,000. **Tr.**—I. Metals, hardware, wines, spices, cottons and silks, twist and yarn, and recently much railway plant and European goods; E. Saltpetre, salt, rice, and other grains, glue, hides, tallow, oil, oil seed, salt fish, bark for tanning, raw silk, wool, madder and alkalis and indigo, cottons, also horses from Cabul and the adjoining countries. **Accn.** In entrance channels HWST. 29ft, NT. 24 to 25ft. Vessels drawing not more than $22\frac{1}{2}$ ft can enter port during all seasons; during fair season, Oct. to May 15, vessels drawing not more than 24ft can enter and leave harbour. **Charges.** On vessel of 1,000 tons for 14 days, loading and discharging £183 2s. Port dues 3d reg. ton per month. **Pilotage.** In and out of port of Kurrachee sailing vessels and steamers. (The monsoon season commences May 15 and ends Sept. 30.) From 100 to 300 tons fair season £4; monsoon season £6, and 10/ for every additional 100 tons above 300. Removing from one part of the port to another £2 10s; removing from one mooring to another at the request of the agent or master £5; detention of pilot for ship being unprepared to proceed on the day named, £2. **Towage.** About 1/ ton.

KUSTENDJIE (CONSTANTA), Turkey. Lat. $44^{\circ} 12' N$; long. $28^{\circ} 21' E$. **Pop.** 5,500. **Tr.**—I. Manufactures and all kinds of colonial produce and dried provisions, iron in bars and sheets, farm implements, prints and manufactured soft goods, timber and coal; E. Wheat, barley, millet, linseed, wool, maize, and rape, cheese, fish, leather, hides, sheep, and oxen. **Accn.** Good harb., with every facility for loading and discharging, having a depth of water of 22ft when dredger is kept working. Vessels over 18ft cannot cross the bar. **Charges.** Port charges for steamers about £10. **Pilotage.** No pilot fees.

LA CIOTAT, France. 14 miles SE. from Marseilles. **Pop.** About 9,000. **Tr.**—I. Timber, sulphur, iron, salt; E. Anchovies, sardines, dry fruits, wine, and olive oil. **Accn.** Harb. formed by two moles; vessels drawing 19ft can enter. Ship-building is carried on. A graving dock 479ft long. **Charges.** On a vessel of 600 reg. tons, drawing 19ft loaded £23. **Pilotage.** On vessel of 600 reg. tons, cargo in and ballast out, drawing 19ft loaded, in £2 7s 6d.

LA ROCHELLE, France. (Bay of Biscay.) Lat. $46^{\circ} 9' 30'' N$; long. $1^{\circ} 30' 55'' W$. **Pop.** 21,000. **Tr.**—I. Coal, iron, petroleum, &c.; E. Wines, brandy, &c. **Accn.** An inner harb., an interior dock, and a still larger exterior dock, outside of which is an outer port. Width of gate of exterior dock 55ft. A gridiron 256ft long, and ship yards. At NT. ships drawing $16\frac{1}{2}$ ft and at S.T. those drawing 21ft to 22ft can enter the exterior dock. This port is of very easy access, and is well situated, with a safe roadstead. **Charges.** Quayage 25 cents per ton. Brokerage £4 per steamer.

Labour $2\frac{1}{4}$ to $3\frac{1}{2}$ day. Tonnage $4\frac{1}{2}$ d. reg. ton. Expenses on a sailing vessel of 241 tons reg. about £26. **Pilotage.** Varies from £1 10s to £5 10s 10d, according to dft. On vessel of 241 reg. tons, coals in and ballast out, in, $14\frac{1}{2}$ ft, sailing £4 4s 8d, steamer £2 2s 3d; out, $8\frac{1}{2}$ ft, sailing £1 10s; steamer 15/1. **Eng. Brokers.** Bouyé, A. Duhoac, E. Mayer, L. R. Mayer.

LA SEYNE, France. Pop. 12,000. **Tr.**—I. Wood and iron; E. Little or nothing. Vessels not drawing more than 16 or 18ft can ascend the channel and anchor in the harb. close to the town. La Seyne is situated in the roadstead of Toulon at the end of a channel having a mean depth of 21ft. **Charges.** Same as at Toulon. **Pilotage.** See Toulon. **Towage.** See Toulon.

LAGOS, Africa. Lat. $6^{\circ} 26' 15''$ N; long. $3^{\circ} 26' 45''$ E. Pop. 40,000. **Tr.**—I. Salt, crockery ware, bread, rice, powder, rum; E. Palm oil, palm nut oil, palm kernels, cotton, ivory, shea butter. **Accn.** Ships drawing 9ft can at most times enter the river. Average depth on the bar 12ft. **Charges.** Wharfage according to agreement. **Pilotage.** A pilot must be taken, who charges 10/ foot. **Towage.** Inwards £25, and same out for all sizes of vessels able to cross the bar, or by agreement.

LAGUNA TERMINOS, Isla del Carmen, Mexico. Lat. $18^{\circ} 38' 44''$ N; long. $91^{\circ} 51' 22''$ W. Pop. 3,200. **Tr.** (Isla del Carmen).—I. Cotton goods, crockery wares, wine, wheat, flour, &c.; E. Logwood, skins, &c. **Accn.** Wharves are run out from town to depth of from 13ft to 18ft, and vessels load alongside them to 13ft. **Charges.** On a vessel of 230 tons £44 10s 3d. **Pilotage.** $7\frac{1}{3}\frac{1}{2}$ foot.

LAMMOO, Zanzibar. Lat. $2^{\circ} 43'$ S; long. $40^{\circ} 56' 21''$ E. **Tr.**—I. Cotton goods, gum, powder, iron; E. Elephants' teeth, rhinoceros horns, gum, wax, skins, maize. **Accn.** Has a secure port, with anchorage deep enough for any vessel when inside. Vessels of 18ft dft. can enter the harb. at L.W.; Sp. rise 11ft.

LANDERNEAU, France. Pop. About 7,000. **Tr.**—I. Salt, coal, iron, and steel; E. Grain, wheat, barley, oats, cheese, butter, eggs. **Accn.** The harb. is formed by the mouth of the river Elorn. There is $7\frac{1}{2}$ ft at HWNT., and 13ft at ST. The harb. can be entered by vessels of about 300 tons. **Charges.** Dues on a vessel of 66 tons, drawing 10ft, about £6. **Pilotage.** On vessel of 66 reg. tons, 114 tons burthen, drawing 10ft, Brest to Landerneau 11/1, and *vice versa*. If a pilot be detained after the first day he is employed, his pay is $3\frac{1}{2}$ per day. **Eng. Broker.** C. Caill.

LANDSKRONA, Sweden. Pop. About 9,000. **Tr.**—I. Coals, coke, soda, raw sugar, machinery, cattle food, &c.; E. Oats, barley, wheat, oxen, pigs, sheep, butter, deals, boards, timber, refined sugar, &c. **Accn.** Has an excellent harb. with depth up to 35ft. **Pilotage.** On a vessel of 200 reg. tons, ballast in, cargo out, in, 10ft dft. $10/10\frac{3}{4}$; out, 14ft dft. $17/0\frac{1}{2}$.

LARNACA, Cyprus. Lat. $34^{\circ} 55'$ N; long. $33^{\circ} 28'$ E. Pop. 8,000. **Tr.**—E. Barley, wheat, cotton, wine; I. Manufactured goods, sugar, &c. **Accn.** Iron pier for discharging; depth 7 to 8ft. Anchorage from 8 to 12 fms in summer, and from 10 to 16 fms in winter. **Charges.** Port, health, and light dues $2\frac{1}{2}$ d per ton.

LATAKIAH, Turkey. Lat. $35^{\circ} 31' 9''$ N; long. $35^{\circ} 45' 35''$ E. Pop. About 14,000. Tr.—E. Wool, sesame, barley, tobacco, cotton. Accn. Harb. formed by jetties, close to which vessels of 11ft dft. can anchor. Charges. Light dues 1d ton.

LAUNCESTON, Tasmania. Lat. $41^{\circ} 3' 25''$; long. $146^{\circ} 48' 15''$ E. Pop. 11,000. Tr.—I. Manufactured goods, tea, sugar, beer, wine, &c.; E. Wool, oats, wheat, flour, timber, potatoes, horses, fruits, sperm oil, bark. Accn. There is a bar with generally about 14ft at HW., which prevents large vessels approaching close to the town. Vessels drawing 17ft or 18ft can go within half a mile of the bar below the town. Floating dock. Charges. Light dues, 6d. per ton. Harb. dues 1d ton. Pilotage. Sailing vessels, 1/ ton, steamers 8d, maximum £30, minimum £5. Vessels anchoring below Georgetown charged one-third, at or above Georgetown, and below Whirlpool Reach, one-half. Towage. Vessels up to 250 tons 2/ ton, for every additional ton up to 500, 1/; for every ton beyond 500, 6d. These rates are payable to and from Launceston and the Heads.

LAURVIG, Norway. Lat. $59^{\circ} 4' N$; long. $10^{\circ} 3' E$. Pop. 10,000. Tr.—I. Coals, grain, ships' stores, &c.; E. Timber, deals, fish, &c. Accn. The harb. is capable of receiving vessels of any size, steamers of 2,000 tons frequently discharging cargoes of grain here. At the quay there is 18 to 24ft of water. Charges. Light and harb. dues, 11d. per reg. ton on all vessels with cargo, in or out; quay dues, steamers, 1 $\frac{1}{2}$ d, sailing vessels 1 $\frac{1}{2}$ d per reg. ton (net) per day. Discharging and loading cheap. Pilotage. On a vessel of 300 tons, drawing 13 to 14ft, £3 12s 9d in, £2 4s 3d out. Towage. There are two small tugboats, which tow vessels at very reasonable rates.

LEER, Germany. Accn. A dock. Has an extensive shipping trade. Vessels drawing 15ft of water may come up to this port at HT. Pilotage. From Emden Roads to Leer river from April 1 to Sept. 30, from 13/6 for vessels of 9ft dft., to 36/ for vessels 14ft dft. From Oct. to Mar. one-half additional. Towage. For vessel of 340 tons, about £9.

LEGHORN, Italy. Lat. $43^{\circ} 35' 5'' N$; long. $10^{\circ} 16\frac{1}{2}' E$. Pop. 94,000. Tr.—I. Colonial produce, raw and manufactured cotton, wool, cutlery, hardware, earthenware, salted fish, and wheat; E. Raw and manufactured silks, straw hats and straw plaiting, oil, fruits, borax, cheese, anchovies, marble, sulphur, coral, shumac, valonia, wines, rags, manure, &c. Accn. Leghorn is one of the chief seaports in the Mediterranean; the harb. has from 3 to 5 fms inside breakwater, and close to town 10 to 16ft. Charges. Disbursements of a vessel of 132 tons, 12ft dft., for 40 days about £25 4s 3 $\frac{1}{2}$ d. Pilotage. Optional for vessels of every nation, either inwards or outwards. Rate to be received by qualified pilots is fixed at 1 $\frac{1}{2}$ d reg. ton; tonnage taken as certified by ship's papers. Pilots are bound to render assistance within the zone comprised between the Meloria Banks and the Medicean or inner harb. From outside the Meloria an additional fixed rate of 15/10 $\frac{1}{2}$ is due for every vessel of whatever tonnage. If qualified pilots are required from the new harb. to the inner harb., the charge is—from 10 to 300 tons 7/11; 301 to 500, 11/10 $\frac{1}{2}$; 501 tons and upwards 15/10 $\frac{1}{2}$. From the new harb. to the dock—from 10 to 300 tons 11/10 $\frac{1}{2}$; 301 to 500,

15/10½; 50t tons and upwards £1. Vessels requiring pilots outwards pay half these rates.

LIBAU, Russia. Lat. 56° 32' N; long. 20° 57' E. Pop. About 11,000. Tr.—I. Salt, herrings, wine, fruits, and colonial produce; E. Rye, cattle, hides, barley, oats, flax, leather, linseed, and deals. Accn. There are 17ft on bar, and the same inside harb. Pilotage. On a vessel of about 210 tons £1 6s 8d. Towage. From harb. to sea or *vice versa*, from 50 to 63 tons £3 5s; 63 to 75 £3 11s 6d; 75 tons and upwards £4 1s 3d. Vessels employing the steamtug inwards have only to pay half these rates outwards. Under extraordinary circumstances an agreement must be made.

LINGAH, Persia. Lat. 26° 33' 5" N; long. 54° 53' 47" E. Pop. About 20,000. Tr.—I. Coffee, candles and oil, rope, cutlery, crockery, indigo, metals, piece goods, rice, sugar, timber, and tea; E. Carpets, drugs, cotton, tobacco from the interior, canvas or sail cloth, local manufactures, salt fish, also pearls, pearl shells, turtle or tortoise shells, and shark fins from the coast of Arabia. Accn. The anchorage is in 5 fms half a mile off shore.

LISBON, Portugal. Lat. 38° 42' 24" N; long. 9° 5' 50" W. Pop. 280,000. Tr.—I. Hemp, flax and linen cloths from Russia, iron, steel, salt fish, timber, pitch and tar from Baltic, linen cloth, &c., from Holland and Germany, codfish from Newfoundland, corn from the U.S., silks from France, cotton and woollen goods, hardware, ale, porter, linen, coals, &c., from England; this trade is almost entirely carried on in foreign ships; E. Wines, fruits, salt, oil, wool, leather, cattle, and cork. Accn. The largest vessels can anchor in the river close to the city. Great extension of harb. works in course of construction by French contractors, MM. Hersent and Couvreaux, of Paris. Pilotage. For foreign or national vessels, in or out, up to 240 tons burthen 1½d ton, and on each ton in excess of 240 tons ½d ton. These rates do not include the river pilotage, which is the same for all vessels, viz.:—From Belem to the anchorage off the Custom House, and *vice versa* 5/4; and 3/6 for each succeeding day the pilot is detained on board. For change of moorings in the river the charge is 5/4 for the first day's work, and 3/6 for each succeeding day, if any.

LJUSNE, Sweden. Tr.—E. Timber, deals, battens, and iron. Accn. Harb. has sufficient depth of water for vessels of 700 tons. Charges. Port dues on a brig of 150 tons £22 18s 4d. Pilotage. On a brig 150 reg. tons, ballast in, cargo of 70 standard deals out, in, 9½ft dft. 15/0½; out, 13ft dft. 21/. Towage. On a brig of 150 reg. tons ballast in, cargo of 70 standard deals out, to loading berth 10/7½; to sea 15/11½.

L'ORIENT, France. Lat. 47° 04' N; long. 3° 31' W. Pop. About 40,055. Tr.—I. Grain, petroleum, shipbuilding materials, coal, iron, and provisions; E. Wheat, wine, brandy, liqueurs, sardines, cloth, iron, lead, silks, wax, &c. Accn. Floating dock for vessels up to 600 tons burthen and 15ft dft. at ST. The largest vessels can discharge in the harbour. Shipbuilding is carried on. There are two graving docks and a heaving-down pontoon for vessels up to 400 tons. Eng. Brokers. Civel, Kerlero du Crano.

LUBECK, Germany. Lat. $53^{\circ} 52' N$; long. $10^{\circ} 41' E$. **Pop.** About 31,000. **Tr.**—I. Wine, silks, cotton, earthenware, pigments, coal, iron, colonial produce, grain, butter, tar, timber; E. Wine, spirits, coffee, sugar, and general merchandise. **Accn.** Large vessels can enter the port. A floating dry dock for vessels up to 1,500 tons, and two slips for vessels up to 400 tons. **Pilotage.** Sea pilotage from $\frac{1}{4}$ d ton, generally by agreement.

LYNGOR, Norway. Lat. $58^{\circ} 38' N$; long. $9^{\circ} 10' E$. **Tr.**—E. Ice. **Accn.** Harb. is small, but port is well sheltered, with a depth of water of 18ft. All kind of supplies can be obtained, and repairs executed at moderate cost. Vessels clear at Rusoer. **Charges.** On a ship of 138 tons, drawing 12ft, about £10 14s. Bridge money about $\frac{1}{4}$ d ton. Broker's fee for clearing about $\frac{1}{4}$ d ton. **Pilotage.** On vessel of 362 reg. tons, ballast in and cargo out, in 10ft £1 4s; out 16ft £1 1s 6d.

MACAO, China. Lat. $22^{\circ} 12' 45'' N$; long. $113^{\circ} 35' E$. **Pop.** About 66,000. **Tr.**—I. Manufactured goods, coals, rice, and opium; E. Coolies, tea, raw silk, &c. **Accn.** 26ft at LW. close to Port San Jago, thence the soundings are 20 and 21ft along the eastern shore to the town. Macao is a Portuguese settlement in China. **Pilotage.** 6 to 9ft dft. £2 12s 1d; 10 to 18ft dft. £5 4s 2d; 19ft dft. £6 5s; 20 to 22ft dft. £8 6s 8d.

MADRAS, India. Lat. $13^{\circ} 5' 10'' N$; long. $80^{\circ} 16' 29'' E$. **Pop.** 458,000. **Tr.**—I. Cotton, hardware, manufactured metals, glass, books, wines, provisions, railway materials, spirits, apparel, timber, horses, &c.; E. Cotton, sugar, indigo, rice, hides, jaggery, cocoanut oil, oil seeds, pepper, &c. **Accn.** Ships moor in about $8\frac{1}{2}$ to 9 fms in the roads. **Charges.** Port dues 44d ton, once in 90 days, if leaving and entering again within that period.

MALAGA, Spain. Lat. $36^{\circ} 43' N$; long. $4^{\circ} 26' W$. **Pop.** 150,000. **Tr.**—I. Coal, coke, patent fuel, fire-bricks, fire-clay, cotton raw and manufactured, linen, woollen, and other textile fabrics, yarns, iron, hardware, glass, china, and earthenware, salt, petroleum, fish, dye stuffs, colonial produce, butter, cheese, timber, naval stores, &c.; E. Wine, raisins, grapes, almonds, figs, lemons, oranges, olive oil, brandy, anchovies, aniseed, canary seed, barilla, grass, lead, and minerals, &c. **Accn.** Vessels of more than 18ft dft. should not attempt to enter harb.; 22ft at the entrance to the port, 26ft inside, and 10ft close to the town. **Charges.** On a vessel of 893 tons 16ft dft. about £51 12s 6d. **Pilotage.** Inwards or outwards:—From 16/4 for sailing vessels up to 60 tons, and 14/8 steamers up to 60 tons, to £1 6s 6d for sailing vessels up to 501 tons and upwards, and £1 2s 6d for steamers of 501 tons and upwards. Inward compulsory; outward voluntary. **Towage.** On a vessel of 893 tons, ballast in and cargo of esparto out, 16ft dft., towage to sea £1 12s 8d.

MALAMOCCHO, Italy. **Pop.** About 132,000. **Tr.**—E. Silk and silk goods, glasswares, books, and bones. **Accn.** Malamocco forms entrance to only passage to Venice for vessels of large dft. Vessels of 28ft can enter with safety. **Charges.** Moderate. **Pilotage.** From Pirano to Malamocco about £2. **Towage.** From Malamocco to Venice about £2 1s 8d for vessel of 100 tons. An agreement should be made as there is no fixed tariff.

MALMO, Sweden. Lat. $59^{\circ} 37' N$; long. $13^{\circ} E$. **Pop.** 46,000. **Tr.**—I. Coal, colonial produce, manufactured goods, cotton, chemicals, ore, herrings, salted fish, manures, cement, wool,

&c. ; E. Grain, timber, cattle, brandy, flour, butter, cheese, &c. **Accn.** Inner harb. formed by moles. The bar and harb. have 19ft of water, and there is a dock 212ft long, where vessels of 17ft dft. can lie alongside the moles. Malmö is situated on the Sound almost opposite Copenhagen. There is a graving dock 200ft long, and a patent slip 400ft long, for vessels up to 1,700 tons, in the port. **Charges.** Light dues, about 3½d for all classes of vessels ; harb. dues 1½d ditto ; load money 1½d ditto. **Pilotage.** For a vessel drawing 10ft 10/10½, 11ft 12/6, 12ft 13/11½, 13ft 15/5, and so on. **Towage.** From the harb. to the last buoy in the roads, and *vice versa*, by the steamer *Active*, which is only obtainable when not engaged in towing mud lighters :—From 11/8½ for a ship of 64½ tons to £1 18s 4d for a vessel of 483½ tons. When steam is not up and special firing is necessary, the charge is increased by 5/3½d. The ship being towed has to provide necessary cables and ropes. **Towage** for greater distance outside the roads must be separately agreed upon with the harbour-master.

MALTA (VALETTA). Lat. 35° 54' N ; long. 14° 31' E. **Pop.** 31,000. **Tr.**—I. Cotton, coals, woollens, coffee, clothing, sugar, linens, dried fish, iron, beer and ale, indigo, butter, earthenware, &c. ; E. Olive oil, ivory, cotton, silk, grain, and oranges. **Accn.** Safe and commodious harb., with sufficient water for largest vessels afloat. Ships of any size can lie alongside quays. A dry dock and pontoon capable of lifting vessels of 3,000 tons reg. **Charges.** Tonnage dues 3d ton. Steamers are exempt from tonnage dues, but pay port dues, whether cargo is discharged or not, £1 each, up to 400 reg. tons, £2 up to 800 tons, and £3 above that tonnage. Discharging 6d to 8d ton. **Pilotage.** Inwards : 100 tons burthen 8/0 ; 101 to 150, 12/ ; 151 to 250, 16/ ; 251 to 350, £1 ; 351 and upwards, £1 5s. Outwards, half above rates. **Pilotage** of a vessel between the Great and Quarantine harb., two-thirds of above rates. Pilots on board vessels subject to quarantine are entitled, if victualled, to 1/8, if not victualled to 2/8 per day, exclusive of pilotage charges. **Towage.** Towing lighters from one harb. to the other and back 10/ ; boat and men 1/6 ; towing same from shore to steamer or dock and back, in any of the harb. 16/6. These charges are made when there is more than one lighter.

MANILA, Luzon, Philippine Islands. Lat. 14° 36' N ; long. 120° 54' E. **Pop.** About 300,000. **Tr.**—I. Cotton abrics, silks, woollens, drugs, clocks, jewellery ; E. Sugar, hemp, cordage, tobacco, cigars, indigo, cotton, coffee, rice, leather, dyewoods, rum, wood, mother-of-pearl, tortoiseshell, &c. **Accn.** Vessels drawing not more than 12ft can load and discharge alongside the quay. There is a patent slip 820ft by 36ft by 26ft. Manila is the capital of the Spanish Possessions in the East. **Charges.** Port and light dues 4d ton. **Pilotage.** According to agreement, say £1 to £2.

MARACAIBO, Venezuela. Lat. 10° 38' N ; long. 71° 42' W. **Pop.** 20,000. **Tr.**—E. Coffee, &c. **Accn.** The harb. is deep enough to contain the largest vessels ; but, owing to the bar closing the Gulf of Venezuela, only vessels of a limited dft. can go there. There is a depth of water on the bar from 12 to 14ft, but no vessel should draw more than 12ft. *Inside the harb.* there are 5 to 7 fms of water close to the town. **Charges.** Tonnage dues with cargo 2/1 in or out. Light dues 3d ton. Clearance £10 8s 4d in and out. Doctor's visit 12/6. Bill of

health 12/6. **Pilotage.** On a vessel of 230 tons reg., with general cargo in and cargo out of divi-divi and fustic, inwards, £6 10s; to the coast £1 13s 4d. **Towage.** In, 6½d ton reg.; out, 4½ ton reg., including pilot.

MARANHAM, Brazil. Lat. 2° 31' S; long. 44° 18' W. Pop. 31,000. **Tr.**—I. Cotton stuffs, linens, woollens, silks, flour, wines, coal, iron, &c.; E. Cotton, rice, sugar, hides, ginger, ipecacuanha, &c. **Accn.** The harb. has from 13 to 24ft at LW. The bar has only 13ft at LW. **Charges.** On a schooner 134 tons cargo, in and out, drawing 11ft, £169 6s 6d. Cotton, pressed bales, one milreis each; unpressed do. 400 reis each. **Pilotage.** Irrespective of size of vessel or dft. of water £8 16s.

MARSALA, Italy. Lat. 37° 47' N; long. 12° 25' E. Pop. About 30,000. **Tr.**—I. Chiefly procured from Palermo, principal imports direct, staves, hoop-iron, and coals. **Accn.** A large and spacious harb. Depth of water varies from 12 to 15ft. **Charges.** On vessel of 142 tons, for 14 days £13 5s 7d. **Pilotage.** On a vessel of 142 reg. tons, ballast in and cargo out:—Pilotage in and mooring, or out and unmooring, £1 11s 9d.

MARSEILLES, France. Lat. 43° 17' 49" N; long. 5° 22½' E. Pop. About 360,000. **Tr.**—I. Oil seeds, raw sugars, cotton, wheat and grain; E. Silk fabrics, wines, brandies and liquors, woollen and other stuffs, madder, oil, soap, colonial produce, and refined sugar. **Accn.** Five docks. Four spacious docks in the new port, and one floating dock in the old harb. for receiving sailing vessels up to 500 reg. tons. The approximate depth of water in the various docks is: Old port 19ft 8in; Joliette 22ft 11in; Lazaret 27ft; Arcenc 27ft 10in; Gare Maritime 29ft 6in; Gare Nationale, at the quay side 22ft, and at the mole side 60ft. Good and ample accommodation for vessels, and large warehouses. **Charges.** Ballast according to agreement. Port charges for a vessel of 141 tons £10 10s. Tonnage dues 4½d reg. ton. No port or dock dues. Health dues 1d ton. Demurrage 4½d ton per day. **Pilotage.** First line inwards 3½d reg. ton, second ditto 2½d; outwards 1½d; 2d ton inwards and 1½d outwards. Should the pilot be taken on board 6 miles off the port, the full charge is made; if only 2 miles, one-fourth less; and three-fourths less if he comes on board at the entrance. **Towage.** On vessels from ports over the ocean 9½d reg. ton. **Eng. Brokers.** Alexander, E. Allard, M. Audibert, J. Barry, A. Bonnet, E. G. Feisch, W. Carr, F. Gutman, C. Saunier, E. Tholozan.

MARSTRAND, Sweden. Lat. 57° 54' N; long. 11° 35' E. Pop. 1,269. **Tr.**—I. Coal, salt, dry goods, &c.; E. Grain, deals and lumber. **Accn.** Harb. has 25 to 50ft of water inside. **Pilotage.** Free when pilot is not employed, but when employed from April 16 to Sept. 16, in 10 Swedish ft 14s 1½d; 15, £1 4s 11½d; 20, £1 7s 2½d; out, 10 Swedish ft, 11s 11½d; 15, £1 0s 11½d; 20, £1 11s 1½d. About 20 per cent. more from Sept. 16 to April 16.

MARYBOROUGH, Queensland. Lat. 25° 23' S; long. 154° 45' E. Pop. About 10,000. **Tr.**—I. Consists of almost every description of British and foreign manufactured goods, besides wines, spirits, tea, coffee, tobacco, cigars; E. Gold, copper, antimony, timber, wool, tallow, hides, sugar, molasses, rum, &c. **Accn.** Vessels drawing 14ft can reach the

town *via* Wide Bar Bay. **Pilotage.** From 6d ton; minimum £3. Foreign-going steamships (not being intercolonial trade vessels) whilst on a foreign voyage, but not carrying cargo coastwise, a remission of customary pilotage dues, except in respect of an amount equal to 1/ ton on all cargo landed and shipped.

MATANZAS, Cuba. Lat. 23° 03' N; long. 81° 37' W. **Pop.** 40,000. **Tr.**—I. Provisions, petroleum, coal, cooperage, stock, &c.; E. Sugar, molasses, honey, &c. **Accn.** The port is sheltered from all winds, except those from ENE., when a heavy swell comes in. On the bar are 4 to 6 fms of water. Tides rise from 1½ to 2ft. Anchorage, in good holding ground in mud, in from 16 to 24ft. Only 8ft of water being at the wharves, vessels receive their cargoes by means of lighters. **Charges.** Custom House fees £2 10s, tonnage dues 5/7½, health dues £1 15s 5d, Port Warden's charges 17/8, discharging ballast 2/1 per ton, ballast, sand, 4/2, stone 6/3, f.o.b. 8/4 per ton. **Pilotage.** (Compulsory.) In and out 4d ton.

MAZATLAN, Mexico. Lat. 23° 12' N; long. 106° 24' W. **Pop.** 14,500. **Tr.**—I. Provisions, machinery, British hardware and crockery, dry goods from France and Germany; E. Silver dollars, Brazil or Lina wood, and copper. **Accn.** Depth of water 12ft on bar, and 18ft inside; rise of Sp. 15ft to 18ft; N. 3½ft to 5ft. Mazatlan is an important harb. on W. coast of Mexico. **Charges.** Tonnage dues 4/2 ton loaded, in ballast free, at merchant's expense. **Pilotage.** 7/3½ foot, and £1 0s 10d for the assistance of a boat.

MELBOURNE, Victoria. Lat. 37° 49' 5" S; long. 144° 58' 35" E. **Pop.** 192,000. **Tr.**—I. Manufactured goods of all kinds, machinery, railway materials, petroleum, naval stores, lumber, tobacco, &c.; E. Wool, gold, coal, metals, tallow, grain, preserved meats. **Accn.** Vessels of 11ft dft. at ordinary tides and frequently those of 16ft dft. can ascend as far as Melbourne. **Pilotage.** For sailing vessels and steamers under sail, from 2½d ton, maximum £7; minimum £1 10s. For steamers and vessels towed by steam 1½d ton, maximum £5; minimum £1 10s according to distance. Outports as follows: Port Albert—sailing vessels 3d ton, maximum £24, minimum £3; steamers 2½d ton, maximum £16, minimum £2 10s. Portland Bay—sailing vessels, 2½d ton, maximum £16, minimum £2; steamers 1½d ton, maximum £11, minimum £1 10s. Vessels having been forced back after pilotage to sea one-half above rates. **Towage.** River towage: All vessels, except steamers, 200 tons and under 1/ ton up, 6d down; above 200 tons, for first 200, 1/ ton up, 6d down; for every ton above 200, 8d ton up, 4d down; steamers, 200 tons net and under £7 7s each way; over 200 tons net, for every 100 tons or part of 100 (extra) £1 is each way; attendance on steamers, steaming up and down between bay and junction, wharf and junction, or *vice versa*, half full rates; all vessels, except steamers, light for docking purposes, from wharf to SW. river or Williams-town docks or slips, or from bay to SW. river, or river docks or slips, half full rates; extra rate for docking in SW. river or road, down 2d ton. Bay towage: Coasters, 200 tons and under £1 11s 6d, over 200, 2d ton each shift; foreign vessels, 500 tons and under £4 4s, over 500 and under 1,200, 2d ton each shift, over 1,200, per agreement; steamers, 200 tons net and under £3 3s, above 200 (for every 100 or part of 100) 10/6 extra; lighters

£1 10s each shift. Heads and Geelong: Foreign vessels, 400 tons and under, £20, above 400 tons, for the first 400, £20, for every additional ton to 2,000, 6d, over 2,000, per agreement. Upon all foreign vessels cleared out with sand or stone ballast only, a reduction of one-fifth on the full rates is made. Towage to Geelong same as to Heads; from Geelong to Heads ditto, with £2 10s extra when proceeding to Geelong Light. All these rates are for fair weather; are exclusive of the use of hawser; for sailing vessels are on the gross reg. tonnage; and for steamers on the net reg. ton. Heads rate is for a fair offing outside, including one tide's detention if necessary. If the steamer is discharged inside, no allowance will be made. If more than one steamer is engaged, an additional half-rate will be charged for every additional steamer. Discount of 5 per cent. for cash.

MEMEL, Germany. Lat. $55^{\circ} 43' 40''$ N; long. $21^{\circ} 9' E$.
Pop. 20,000. **Tr.**—I. Colonial produce, salt, herrings, dyewoods, tobacco, coals, &c.; E. Corn, wood, hemp, amber, flax, bristles, nails, hides, linseed, wax, pitch and tar. **Accn.** Average depth on the bar is stated to be 19ft 10in. **Charges.** On a vessel of 140 tons about £7; steamer 730 tons £75. **Pilotage.** River pilotage about 8½d per ton.

MESSINA, Italy. Lat. $38^{\circ} 11' 30''$ N; long. $15^{\circ} 34' 31'' E$.
Pop. 80,000. **Tr.**—I. Cotton and woollen manufactures, colonial goods, coals, hides, iron, copper, corn, and grain. **Accn.** Deep water throughout harb., and large vessels can load and unload close to quays. Width of entrance 500yds. This port is most secure and commodious. **Charges.** Anchorage dues 10d ton. Brokerage 2%, commission 3%. **Pilotage.** Up to 100 tons 19/9; 101 to 200, £1 7s 8d; 201 to 300, £1 15s 7d; 301 to 400, £2 7s 6d; 401 to 500, £2 19s 4d; over 500 pay ½d ton additional to the £2 19s 4d.

MIDDELBURG, Holland. Lat. $51^{\circ} 32' N$; long. $3^{\circ} 39' E$.
Pop. 17,000. **Accn.** Vessels of 300 reg. tons can reach the town and moor alongside the quays. There is a graving dock 410ft in length. **Charges.** On vessel of 115 tons drawing 11½ft £19. **Pilotage.** On vessel of 115 reg. tons, cargo in and ballast out, 11½ft dft. loaded, from sea, winter rate £3 12s, out 30/. Summer rate one-third less.

MINATITLAN, Mexico. On the River Coatzacoalcas, Lat. (mouth of river) $18^{\circ} 4' N$; long. $94^{\circ} W$. **Pop.** 1,000. **Tr.**—I. Flour, lumber, liquors, provisions, &c.; E. Mahogany, fustic, cedar, hides, and indigo. **Accn.** Vessels anchor or make fast to posts along the shore. The river below the town is navigable for large vessels, but the entrance is obstructed by a bar of hard clayey substance, over which vessels drawing only 10 to 11ft can pass. The bar does not shift, and the sea breaks heavily on it during northerly gales. **Charges.** Wharfage 5d per ton, and 25% extra, lighthouse dues £5. **Pilotage.** 7/3 per foot inward, and the same outward for the bar; there is also £2 10s. for going up the river, and the same down. For use of pilot's boat £2 10s.

MIRAMICHI, N.B. Lat. $47^{\circ} N$; long. $65^{\circ} 19' W$. **Tr.**—E. Lumber and preserved salmon. **Accn.** There is 21½ft of water over the bar at ST. Vessels of that draft can lie in the river with perfect safety in the best anchorage. Chatham, one of the principal towns on the S. bank of river, has a Pop. of 6,000. Vessels drawing 21ft can safely

load there. **Charges.** On vessel of 528 reg. tons drawing 17 to 18ft £84. **Pilotage.** Inwards $9\frac{1}{4}$ foot, outwards $7\frac{1}{2}$ foot, if drawing less than 17ft, and $8\frac{1}{4}$ if drawing 17ft and upwards. For the removal of any ship or vessel, and seeing such ship or vessel properly secured and moored, the following rates, viz. :— $\frac{6}{3}$ for vessels not ex. 100 tons ; $\frac{8}{4}$ for vessels 100 tons and not ex. 200 ; $\frac{12}{6}$ for vessels over 200 and not ex. 300 ; and $\frac{16}{8}$ for all vessels over 300. And where the distance of removal ex. 4 miles, 50 % additional is allowed on the above rates, and after the 1st Nov. in each year any pilot taking out any ship or vessel is entitled to demand and receive the sum of $\frac{16}{8}$ in addition to the above rates, provided that such pilot shall have taken such ship or vessel clear to sea, leave her without causing any unnecessary delay, and without the ship or vessel having to land such pilot. **Towage.** From the Horseshoe, and between that and Robicheau Buoy to Chatham from £5 12s 8d for under 300 tons to £19 11s 4d for 1,000 to 1,200 tons ; between Robicheau Buoy and Napau Bay to Chatham from £4 15s 10d for under 300 to £16 13s 4d for 1,000 to 1,200 tons ; between Napau Bay and Chatham £3 15s to £13 2s 6d respectively ; from Chatham, outside the bar, £7 10s to £22 18s 4d respectively ; Black Brook to Douglass town $1\frac{1}{2}$ ton ; from Black Brook to Newcastle or Nelson 2d ton ; from Middle Island to Douglass town 1d, to Newcastle or Nelson $1\frac{1}{2}$ ton.

MOBILE, U.S. Lat. $30^{\circ} 13' 48''$ N ; long. $88^{\circ} 0' 25''$ W. **Pop.**

About 45,000. **Tr.**—I. Salt, coffee, &c. ; E. Cotton, timber, naval stores, &c. **Accn.** Vessels of 20ft dft. can always cross the bar ; those of $16\frac{1}{2}$ ft dft. can reach the wharves at the city. **Pilotage.** Lower bar, in and out, 4 to 10ft dft. $10\frac{1}{6}$; 10 to 12ft dft. $11\frac{1}{3}$; 12 to 14ft dft. $12\frac{1}{4}$; 14 to 20ft dft. 19/foot. Upper bar, in and out, by way of Choctaw Pass, $7\frac{1}{3}$ foot. Pilotage not compulsory. If spoken by pilots on arriving and departure, and not wanted, only half pilotage is collected ; if not spoken, there is nothing to pay. **Towage.** £2 2s $3\frac{1}{2}$ d to £10 11s $5\frac{1}{2}$ d, as per dft., and contract ; on loaded ships to sea 4d to 5d ton.

MOMBAZA, Zanzibar. Lat. $4^{\circ} 04' 00''$ S ; long. $39^{\circ} 43' 9''$ E.

Pop. About 3,000. **Tr.**—I. Glasswares, cotton goods, copper, iron, &c. ; E. Ivory, horns, skins, wax, gum, copal, &c. **Accn.** The port has sufficient water for vessels of 30ft dft. The Sp. rise about 11ft. Has an inlet about two cables wide.

MONTE VIDEO, Uruguay. Lat. $34^{\circ} 53' 15''$ S ; long. $56^{\circ} 14' 15''$ W. **Pop.** 110,000. **Tr.**—I. Cotton

and woollen fabrics, hardwares, boots and shoes, wine, tin, rice, salt, beer and ale, coals, silks ; E. Wool, hides, sheepskins, tallow, grease, horsehair, beef, extract of beef, bones and bone ash, horns, wheat, &c. **Accn.** The harb. has a depth of 9 to 14ft ; mud bottom. The anchorage for large vessels is about 2 miles S. of San José Point, in 22ft water. Vessels may anchor farther in as convenient, and those of light dft. in the inner anchorage, or harb. proper, in 9 to 14ft water. **Charges.** 2d to 5d ton. Extra during time of loading and unloading (4/2 day). Light dues 2d ton. **Pilotage.** From Monte Video to Buenos Ayres :—From £12 10s to £45 16s 8d according to dft.

MONTREAL, Canada. Lat. $45^{\circ} 31' N$; long. $73^{\circ} 33' 15''$ W.

Pop. About 150,000. **Tr.**—I. Coal, iron, wines, W.I. goods, and general merchandise ; E. Grain, lumber, phosphates. **Accn.** A perfectly safe harb., lined with wharves. The

ship channel has a depth of 25ft at ordinary low water. **Charges.** On a vessel of 628 tons about £565. Tonnage dues, steamers $\frac{1}{4}$ reg. ton per day; sailing vessels $\frac{1}{4}$ d. Wharfage about 2/ ton. **Pilotage.** From the harb. of Quebec to the harb. of Montreal or to any place above Sorel and below the harb. of Montreal:—For any vessel in tow or propelled by steam (except as hereinafter mentioned) for each foot dft. upwards $\frac{8}{4}$, downwards $\frac{8}{4}$; for any seagoing vessel propelled by steam, for each foot of dft. upwards $\frac{10}{5}$, downwards $\frac{10}{5}$; for any vessel under sail, for each foot of dft. upwards $\frac{17}{6}$, downwards $\frac{11}{8}$. From the harb. of Montreal to Sorel, or to any place above Sorel and below Hochelaga, and from Sorel, or any place above Sorel, to the harb. of Montreal, for each foot dft. for each such pilotage upwards $\frac{4}{2}$, downwards $\frac{4}{2}$. For the removal of any vessel from one wharf to another within the limits of the harb., or from any of the wharves into the Lachine Canal, or out of the said canal to any of the wharves in the harb., or from the foot of the current; or from the Longueuil into the harb.; or from the harb. to the foot of the current, or to Longueuil, for each such service, £1 os 10d. Pilots shall be paid for all fractional parts of a foot of dft. *pro rata* to above tariff. Pilots shall be paid for the pilotage of any vessel coming up or going down part of the distance in tow, and part under sail, proportional rates of the foregoing tariff, according to the distance made in tow or under sail. **Towage.** Minimum 150 tons, 9ft dft. $\frac{2}{6}$ ton; maximum 1,600 tons, 22ft dft. $\frac{1}{9}$ ton. Vessels taken in tow from the Batiscan Church at Pointe-aux-Trembles, or any intermediate place above the said Pointe to Montreal pay one-third the full towage. Downward one-half of upward rates.

MORETON BAY, Brisbane, Queensland. Lat. $27^{\circ} 2' 17''$

S; long. $153^{\circ} 29' E$. Pop. 33,000. Tr.

—I. General merchandise, iron, machinery; E. Sheep, wool, tallow, hides, pressed meats, gold, tin, copper, and coal. **Accn.** Vessels drawing 19ft to 20ft can pass up and down the river by night or day. Brisbane is about 16 miles from the entrance of the river.

Charges. $\frac{1}{6}$ per ton on cargo or passengers landed or shipped. Commissions on freight or charter procured or passage money collected 5 per cent. Ship's disbursements and outfit, when not in funds, 5 per cent. Stone ballast put on board $\frac{3}{6}$ ton, sand ballast put on board $\frac{2}{6}$ ton, stowing 1/ ton for general cargoes. Water put on board alongside the pier $\frac{4}{10}$ ton. Dues and charges on a vessel of 1,199 reg. tons, with 1,000 tons cargo and 400 emigrants, inwards, ballast out, £451 6s 6d. **Pilotage.** Inwards, outwards, 3d. **Towage.** On a vessel of 765 tons, from bay to town, £38 5s, town to bay £28 13s 9d.

MORLAIX, France. Lat. $48^{\circ} 38' N$; long. $3^{\circ} 47' W$. Pop.

About 13,000. Tr.—I. Coal, clay, earthenware;

E. Barrel, pork, butter, &c. **Accn.** A floating dock. At HW. the depth of the entrance of the dock is about 15ft. The dock is about 10 miles up the Morlaix river. There is a graving beach 164ft in length. **Charges.** On a vessel of 85 reg. tons, ballast in, cargo out, drawing 10ft loaded, about £5. Broker's charge on inward cargo 3 per cent. on amount of freight. **Pilotage.** From sea to Morlaix 4d ton. On vessel of 85 reg. tons, ballast in, cargo out, drawing 10ft, loaded, in £1 1s 8d, out £1 8s. 6d. **Eng. Brokers.** B. Bastide, J. Le Despensier.

MOSS, Norway. Lat. $59^{\circ} 27' N$; long. $10^{\circ} 40' E$. Pop. 7,000. Tr. (Only exports).—E. Wood and salt. **Charges.** On vessel of 138 reg. tons, drawing 12ft, about £10 15s. **Pilotage.** On vessel of 138 reg. tons, ballast in and cargo out, 12ft dft., loaded, in to Verlebugt (summer) £2 5s 6d; out (summer, 15/6.

MOULMEIN, India. Lat. $16^{\circ} 3' 0'' N$; long. $97^{\circ} 42' E$. Pop. about 60,000. Tr.—I. Cotton goods, marine stores, and cocoanuts; E. Teak, rice, shellac, betelnut, ivory, sapan wood. **Accn.** There is no want of water in channels; ships drawing 23ft can enter during ST. at any time of year. A dry dock and patent slip. **Charges.** The disbursements of a vessel of 500 tons about £250. Vessels supply themselves with water from the river. **Pilotage.**—

Dft of water.	Full.	1-5th.	2-5ths.	3-5ths.	4-5ths.
Minimum, below and up to 8ft.	50/	10/	20/	30/	40/
Maximum, 25 to 26ft	£66	£13 4s	£26 8s	£39 12s	£52 16s

Intermediate portions of a foot to be regulated as follows: 3in and under no addition; between 3 and 9in the medium between the two rates; above 9in the dft. of the next foot to be taken. Vessels taking steam aid to be charged 2-3rds of the rate for sailing vessels. Steamers under 15ft, half the rate of sailing vessels, above 15ft, 3-5ths of such rate. Vessels not taking licensed pilots, and above 100 tons, will be charged by Government at the rate of 1½d reg. ton. The charge for shifting a berth in the port, or removing a vessel, is 50/. Vessels that call for orders, or put into Amherst in distress, and proceed in and out without a pilot, shall be exempt from pilotage. A pilot may be detained 24 hours after arrival off town without demurrage. The pilotage distance is divided into fifths for charging broken or intermediate pilotage; but the least sum payable to a pilot for taking a vessel in or out of Amherst is £2 10s.; outside Patch Buoy to New Channel 1-5th; New Channel to Fishing Village 1-5th; Fishing Village to Halfway Creek 1-5th; Halfway Creek anchorage to Natmoo anchorage 1-5th; Natmoo anchorage to Moulmein 1-5th. **Towage.** Under 15ft dft. £30, and £10 extra for every additional foot of dft.

MOZAMBIQUE, Africa. Lat. $15^{\circ} 4' S$; long. $40^{\circ} 44' E$. Pop. About 7,000. Tr.—I. Cotton goods, beads, brass and copper wire, bar-iron, dry goods of every description, guns, powder and lead, hardware, wines, spirits, beer, preserved meats, fruits, vegetables, French tiles and bricks, cattle from Madagascar; E. Ivory, indiarubber, oil seeds, cowries, columba root, and gum copal. **Accn.** Vessels drawing 25ft may enter the harb., but the space is limited. **Charges.** Tonnage dues about 9d ton, health officer, &c. **Pilotage.** About 2d ton.

MUSCAT, Arabia. Lat. $23^{\circ} 27\frac{3}{4}' N$; long. $58^{\circ} 35\frac{3}{4}' E$. Pop. 40,000. Tr.—I. Almonds, aloes, rice, sugar, coals, gum ammoniac, nitre, gum copal, assafoetida, frankincense, ivory, horns, hides, wax, British and Indian cotton goods, shawls, and china manufactures—most of these are re-exported to India and the East; E. Dates, wheat, hides, asses, horses, salt, coffee, pearls, raisins, sulphur, and drugs. **Accn.** Anchorage in 3 to 5 fms about 2 cable lengths from the landing pier. There is a cove which is well sheltered and has deep water in which vessels can moor. **Charges.** Moderate. **Pilotage.** On an American ship of 1,140

tons coming to Muscat with a cargo of coals and leaving in ballast, inward, 21/.

MUSQUASH, N.B. Lat. $45^{\circ} 9' N$; long. $66^{\circ} 15' W$. **Tr.**—E. Deals. **Accn.** Entrance about a mile wide. Vessels of 20ft dft. can go in and out, and lie afloat loading in berth at all times. **Charges.** By agreement. **Pilotage.** (Compulsory.) In 7/3, out 4/2.

NAGASAKI, Japan. Lat. $32^{\circ} 44' N$; long. $129^{\circ} 48' E$. **Pop.** 100,000. **Tr.**—I. Manufactured goods, iron, sandal wood, lead, and various articles of merchandise, except munition of war, which can only be sold to the Japanese Government and to foreigners; E. Tea, grapes, sulphur, isinglass, paper, coal, vegetables, wax, gall nuts, copper, dried fish, sea slugs, seaweed, peas, beans, camphor, crockery, planks, rape seed, tobacco, and rice. **Accn.** The port is large and commodious, and available for ships of all classes. A graving dock, $374 \times 77 \times 25$ ft, for vessels up to 1,200 tons, and a patent slip for vessels of 1,000 tons. **Pilotage.** Inwards 12/6 foot, outwards 6/3. **Towage.** No tow-boats, but small boats (sampans) perform this service in moderate weather. The cost of 40 sampans, sufficient to tow a 1,000-ton ship, is £2 10s to £3 2s 6d.

NAKSKOV, Denmark. **Tr.**—I. Manufactured goods, coal, iron, wine, timber, colonial produce, salt, manures, feeding stuffs; E. Grain, especially wheat and barley, flour, butter, eggs, cheese, wool, hides, cattle, sheep, and pigs. **Accn.** 14ft in the fairway of the Fiord leading up to the harb., and 14ft inside (Danish). Nakskov is on the W. coast of the Isle of Lolland. **Charges.** Government dues uniform for all Danish ports, about 6d per reg. ton. Harb. dues about 1½d per reg. ton in ballast or loaded. **Pilotage.** From sea to harb. or *vice versa* :—From April 1 to Sept. 30, 1/2½ foot; from Oct. 1 to March 31, 1/7½ foot; from Albu to the harb. and *vice versa*, from April 1 to Sept. 30, 11d; from Oct. 1 to March 31, 1/2½ foot. Pilot's travelling expenses back, 8d Danish mile.

NAMSOS, Norway. Lat. $64^{\circ} 30' N$; long. $11^{\circ} 30' E$. **Tr.**—I. Coal, salt, and grain; E. Deals, battens, boards, mining timber, and herrings. **Accn.** Depth of water varies from 10 to 30 fms; good anchorage close to the town. Vessels can easily be repaired. **Charges.** About 5d reg. ton. Light dues, 5d per ton, when loaded; no dues in ballast. Coals about £1 per ton. Provisions are cheap. **Pilotage.** The distance from Namsos to the sea is about 28 miles. Pilots can always be had at Villa-Oe Lighthouse. Inwards (summer) 3d reg. ton, outwards 2½d; inwards (winter) 4d, outwards 3d. **Towage.** A steam tug can be obtained.

NANAIMO, British Columbia. Lat. $49^{\circ} 10' N$; long. $123^{\circ} 56' W$. **Tr.**—E. Coal, lumber, furs, skins, salmon; I. Beef and mutton, cereals, manufactured goods. **Accn.** Every convenience for loading coal; a ship of 1,000 tons can be loaded in a week. **Charges.** Vessels under 200 tons 6/3, under 300 tons 8/4, under 400 tons 10/6, under 700 tons 16/8, over 700 tons 21/. **Towage** from Nanaimo to Royal Roads: minimum, 500 tons £17 18s 4d; maximum, 1,200 tons £125. Wellington Collieries 3 miles N. of Nanaimo.

NANKIN, China. Lat. $32^{\circ} 02' N$; long. $118^{\circ} 24' E$. **Pop.** About 500,000. **Accn.** Vessels drawing 20ft can ascend as far as this port. Nankin is 235 miles from the sea.

NANTES, France. Lat. $47^{\circ} 14' N$; long. $1^{\circ} 30' W$. **Pop.** 122,000. **Tr.**—I. Coal, pig-iron, sugar, coffee, cotton, indigo, timber, hemp, cord, oil, pitch, guano, &c.; E. Brandy, potatoes, buckwheat, sardines in oil, flour, refined sugar, salt, wheat, charcoal, pit-props, &c. **Accn.** Vessels drawing 14ft 10in can proceed to the quay. Those above 16ft dft. should not attempt to ascend to Nantes. A floating dry dock 158ft long, and pontoons for large vessels. **Charges.** Port charges for steamer of 324 tons about £44. **Pilotage.** On vessel of 144 reg. tons; inwards, with a cargo of 243 tons coals from Sunderland, outwards in ballast, in, 12ft dft., out 7ft; sea to Paimbœuf £5 10s; Paimbœuf to Nantes £1 18s; Nantes to Paimbœuf £1 14s; Paimbœuf to Four £1 2s 4d. When vessels are towed up, one-fourth less is charged. **Towage.** If required, 9½d ton inwards. **Eng. Brokers.** De Gonfreville, L. E. Joubert, R. Le Houelleur, A. M. Maillard, A. Manjot, A. M. Moyau, P. Segueineau.

NAPLES, Italy. Lat. $40^{\circ} 50' 19' N$; long. $14^{\circ} 15' 36' E$. **Pop.** About 508,000. **Tr.**—I. Manufactured goods, colonial produce, petroleum, coal, iron, machinery, cotton yarns; E. Gloves, soap, perfumery, silks, artificial flowers, corals, earthenware, hats, olive oil, wool, wine, brandy, green fruit, and dry fruits. **Accn.** 3 to 4 fms inside harb., which is protected by a double mole. A graving slip $247\frac{1}{2} \times 63$ ft, with 27ft on sill at ST. and 19ft at NT. **Charges.** Tonnage dues 5½d. Sanitary dues 4½ ton. **Pilotage.** From 7/11 for vessels up to 100 tons to £1 3s 9d for vessels of 251 to 300 tons, and 2/4½ additional for every 50 tons. **Towage.** By agreement.

NASSAU, New Providence, Bahamas. Lat. $25^{\circ} 5' 37' N$; long. $77^{\circ} 22' 22' W$. **Pop.** About 7,000. **Tr.**—I. Powder, &c.; E. Sponges, cottons, pimento, fruits, and salt. **Accn.** Vessels of 15ft dft. can enter at HWST., although the depth is 17ft, but the bar is rocky and only safe for that dft. **Charges.** A vessel of 151 reg. tons, drawing 11½ft, in and out, total cost £17 2s 9d. **Pilotage.** From 12/6 for 6ft and under, to £5 10s for 18ft, and 5/ in addition for every half foot above 18ft, and an additional fee of £2 on steamers. Vessels under 30 tons exempted, unless the masters voluntarily accept the services of pilot. A moiety payable when vessels are anchored outside the bar of N. harb. No extra pilotage allowed for centreboards of vessels. **Towage.** A vessel of 941 reg. tons £19 5s. in and out.

NATAL, Africa. (See Port Natal.)

NATAL, Brazil. Lat. $5^{\circ} 45' S$; long. $35^{\circ} 14' 50' W$. **Pop.** 11,000. **Tr.**—I. Railroad ties and railroad machinery; E. Cotton, sugar, dyewoods, and other Brazilian produce. **Accn.** 14ft on the bar at LT. Sp. rise 8 to 10ft. From the entrance to the town $4\frac{1}{2}$ to $5\frac{1}{2}$ fms. **Charges.** Dues and charges on a barque 371 reg. tons drawing 13ft 2in, £72 9s 11d. **Pilotage.** On a barque of 371 reg. tons; ballast in and cargo out, 13ft 2in dft. loaded; up and down to Natal £10 8s 4d, Guarapes and back £8 6s 8d.

NEDER CALIX, Sweden. Lat. $65^{\circ} 50' N$; long. $23^{\circ} 10' E$. **Tr.**—E. deals, &c. **Accn.** Vessels of 18ft dft. can ascend as far as the town. **Charges.** On a vessel of 450 tons ballast inward, deals out, £50 9s 8d. **Pilotage.** On a

vessel of 303½ reg. tons, ballast in and cargo out, in, from Maloren 12ft, £1 1s 1½d; out, 17ft, £2 1s 3d.

NELSON, New Zealand. Lat. 41° 15' 35" S; long. 173° 16' 58" E. Pop. 7,500. Tr.—I. General merchandise; E. Wool, gold, flax, hops, grain. Accn. Vessels of 18ft to 20ft dft. can enter at HWST. Charges. On a barque of 500 reg. tons cargo in and ballast out, £41 16s. Pilotage. Steamers not ex. 150 tons 4d; from 150 to 250 tons 4d on 150 tons, and 2½d ton on excess over 150 tons in or out; from 250 to 400 tons 3½d on 250 tons and 2d ton on excess over 250 tons in or out; ex. 400 tons 3d on 400 tons and 1½d ton on excess over 400 tons in or out. After annual pilotage, steamers under 240 tons, £1 each way, 240 tons and upwards 1d ton in and out; sailing vessels from 50 to 250 tons 4d, 250 to 400 tons 5d, ex. 400 tons 6d ton; vessels towed into and out of harb. by steamer are entitled to a reduction of one half the above rates. For removing any steamer or sailing vessel within the harb., from 50 to 250 tons 1d, and from 250 tons and upwards ½d ton. Towage. On a barque of 502 reg. tons, cargo in and ballast out £16 13s.

NEUHAUS, Germany. Pop. About 2,000. Tr.—I. Coals, wood, &c.; E. Cement, bricks, tiles, &c. Accn. Vessels of 10ft dft. can enter the harb., and those of 15ft dft. can load in the river Oste. Charges. River dues on a vessel of 50 tons 4/. Harb. dues the same. Pilotage. 2/ per ft.

NEW BEDFORD, U.S. Lat. 41° 38' 6" N; long. 70° 54' 31" W. Pop. About 27,000. Tr.—I. General merchandise, coal, and staves; E. Oils, fish, whalebone, &c. Accn. Vessels of 16ft dft. can enter the inner harb. or pool at L.W. Charges. Wharfage dues 10d 100 tons per day. Pilotage. 9/4½ foot, inwards and outwards. Towage. As per agreement.

NEW ORLEANS, U.S. Lat. 29° 57' 45" N; long. 90° 9' W. Pop. About 250,000. Tr.—I. Manufactured goods, salt, iron, wines, coffee, fruit, and coal; E. Cotton, tobacco, flour, grain, corn, pork, &c. Accn. The S. Pass has 26 to 30ft; the S.W. Pass has now only 13ft. The construction of the jetties at the S. Pass enables vessels to load up to 26ft. Since the jetties were made the other Passes have gradually filled up, and are not now used, except for very small vessels. Charges. Harb. master's dues, £4 each vessel, steam or sail. Pilotage. Bar, over 10ft dft. 19/ foot each way; river, from inside the bar to the city, and *vice versa*, £8 9s 2d, up and down. Ships of war and steamships are the only vessels requiring the services of river pilots. Towage. From bar to city, and city to bar 3/3¼ ton.

NEW WESTMINSTER, Brit. Col. Lat. 49° 13' N; long. 122° 53' W. Tr. I.—General merchandise; E. Lumber, fish, canned and salted salmon, ships' spars of the finest quality, and minerals. Accn. The town, which is 15 miles from the bar of the river, can be reached by vessels of 18ft dft. Pilotage. Pilotage compulsory. No rates given. Towage. From Royal roads and return for a vessel of 700 tons about £62 10s.

NEW YORK, U.S. Lat. 40° 42' N; long. 74° 8' W. Pop. About 2,500,000. Accn. There are 70 piers for shipping on the W. and 90 on the E. side of the city. Vessels drawing 23ft can lie at some piers at HW. Charges. No light dues are payable by British vessels. Wharf dues 1d ton per day up to 200 tons, 1/4 per 100 tons above 200. Pilotage. Via Sandy

Hook, from April 1 to Nov. 1. Minimum, inwards, 6ft dft. 15/9½; outwards, 6ft dft. 11/6½ foot; off shore £1 3s 5½d. Maximum, inwards, 25ft dft. £1 7s 5½d; outwards £1 os 2½d foot; off shore £8 11s 9d. From Nov. 1 to April 1, 16/11 additional. Detention 12/8½ day. For taking vessels from upper to lower quarantine, for vessels having had death or sickness on board, double outward rates; for vessels from sickly ports, but having had no sickness on board, single outward rates; for vessels from new quarantine to New York, half inward rates; vessels from lower to upper quarantine, quarter rates; vessels from upper quarantine to New York, quarter rates. **Towage.** Transporting ship not ex. 200 tons £2 2s 3½d, 400 tons £3 3s 5½d, 600 tons £3 11s 10½d, 800 tons £4 4s 7d, 1,000 tons and upwards £3 3s 5½d to £4 4s 7d; North to East river, and *vice versa* £1 1s 1½d. Hauling to and from wharf 12/8½.

NEWCASTLE, New South Wales. Lat. 32° 55' 15" S; long. 151° 49' 15" E. Pop. 65,000. Tr.—I. Manufactured goods, hardware, glass and earthenware, &c.; E. Coal, coke, wool, copper, tallow, hides, and country produce. **Accn.** Vessels drawing 22ft can safely enter; 21ft on the bar; tide rises 2½ft N. and 5ft Sp. **Charges.** Harb. light rate 4d reg. ton half-yearly. Dues and charges on a vessel 1,300 tons reg., ballast in and coal out, about £247. **Pilotage.** From and to sea 4d reg. ton. Vessels under 300 tons whose masters do not hold an exemption certificate have to pay £2 10s pilotage each way, whether having the services of a pilot or not. Removals:—from 20/ for vessels under 300 reg. tons to 50/ for vessels of 1,000 tons, and 60/ for those exceeding 1,000 tons. **Towage.** From sea 8d per reg. ton. Removals as follows:—From 20/ for vessels of 200 reg. tons to 60/ for vessels of 701 tons and over, with 10/ for each intermediate 200 tons; steamers up to 500 and under 600 reg. tons 70/, over 600 and under 1,000, 80/, over 1,000, 100/ per removal.

NEWCHWANG, China. Lat. (entrance buoy) 40° 35' 26" N; long. 121° 58' 24" E. Pop. 60,000. Tr.—I. Opium, sugar, and cotton; E. Beans, bean oil, bean cake, castor oil, brown silk, hemp, tobacco, jute, felt, indigo, furs, hides. **Accn.** Least depth on the bar at LWST. 7½ft; Sp. rise 11ft or 12ft, and N. rise 7ft or 8ft. The anchorage is opposite the town, about 800yds wide, with great depth of water. **Charges.** No local; tonnage dues same as Canton. **Pilotage.** £1 foot.

NEWHAVEN, U.S. Lat. 41° 14' 52" N; long. 72° 54' 35" W. Pop. About 70,000. Tr.—I. Rags, paper, crockery, rails, iron, coal, &c.; E. Mules, hoops, staves, ammunitions of war, &c. **Accn.** Vessels of 18ft dft. can discharge alongside the wharves. **Charges.** Health dues £1 os. 10d. **Pilotage.** On foreign vessels at the rate of 3/3½ foot; from 9 to 12ft, 4/2½ foot; from 12 to 15ft and over, 6/3½ foot. **Towage.** About £2 2s 3½d for brigs and schooners, and £3 3s 5½d to £6 6s 10½d for barques and ships; from Newhaven to New York, 71 miles £10 11s 5½d.

NEWPORT, U.S. Lat. 41° 28' 22" N; long. 71° 21' 14" W. Pop. About 11,000. Tr.—I. Lumber, W.I. goods, general merchandise; E. Nil. **Accn.** Vessels of 18ft dft. can lie close to the pier at L.W. Vessels of the largest tonnage can enter the port. **Pilotage.** Compulsory on vessels under reg. Ta-

wards, $5\frac{1}{2}$ to $14\frac{1}{7}$ foot, and $1\frac{1}{2}$ extra for winter; outward, from $4\frac{1}{2}$ to $6\frac{1}{3}$ foot.

NICE, France. Lat. $43^{\circ} 42' N$; long. $7^{\circ} 17' E$. **Pop.** About 77,500. **Tr.**—I. Wheat, brandy, wines, and coal; E. Olive oil, confections, perfumery, oranges, cement and plaster. **Accn.** The harb. has a superficial area of about 38,000 sq yds, and will shortly be enlarged to double its present size. It is well protected and easy of access. Mean depth of water 22ft. **Charges.** Harb. dues, including tonnage and quay dues, 5d per reg. ton. Excellent fresh water can be obtained. **Pilotage.** £1 11s 9d for every vessel; putting ships alongside quay $7\frac{1}{11}$ d. **Eng. Broker.** J. Salvy.

NICOLAIEFF, Russia. Lat. $46^{\circ} 58' 20'' N$; long. $31^{\circ} 58' 36'' E$. **Pop.** About 90,000. **Tr.**—I. Coals, cement, iron, machinery, and general merchandise; E. Wheat, rye, barley, oats, linseed, rapeseed, sugar, wool, iron ore, and timber. **Accn.** Vessels drawing 14 or 15ft can always pass the bar without lightening, and the channel has been dredged to a minimum depth of 20ft. **Charges.** On a steamer of 1,200 reg. tons, dft. 18½ft, about £66. **Pilotage.** 2/ per foot in and out.

NICOLAISTAD, Russia. Lat. $63^{\circ} 4' 3'' N$; long. $21^{\circ} 43' E$. **Pop.** 7,000. **Tr.**—I. Salt, coals, and general merchandise; E. Tar, pitch, cattle, corn, and general provisions. **Accn.** In inner roadstead close to the town, there is a depth of 15ft to 16ft; the quays are accessible to vessels of 12 and 13ft dft. **Pilotage.** Between Ronnskaren and Wasa, a vessel 16ft dft. pays £3, and between Norrkaren and Wasa, 20ft dft. £4 19s. These rates are augmented 25 per cent. from September 15 to May 10. **Towage.** Steamtug can always be had for harb. service.

NINGPO, China. Lat. $29^{\circ} 55' N$; long. $127^{\circ} 30' E$. **Pop.** 300,000. **Tr.**—I. Cotton and woollen manufactures, opium, dried fruits, &c.; E. Tea, raw cotton, medicines. **Accn.** Vessels of 17ft dft. can enter town at half-tide. Sp. rise 9ft. **Charges.** Tonnage dues 2/6 per ton for vessels over 150 tons. **Pilotage.** It is advisable to write and engage a pilot beforehand. Steamers 12/6 per ft, sailing vessels 16/8 per ft, from Square Island to Ningpo, and *vice versa*. **Towage.** No steam tugs.

NORFOLK, U.S. Lat. $36^{\circ} 51' N$; long. $76^{\circ} 19' W$. **Pop.** 25,000. **Tr.**—I. Salt, phosphate, iron, tar, oil, &c.; E. Cotton, grain, staves, timber, and cattle, coals, meat, tobacco, and general western produce. **Accn.** The channel has 24ft of water OT. **Pilotage.** Varies from $10\frac{1}{6}$ foot for vessels of 10ft dft. and under, to $18\frac{1}{4}$ for any dft. over 16ft. Vessels coming to Hampton Roads, seeking, in ballast, only half rate in and half rate out; but if they are chartered in the State they will have to pay usual full rates in and out. This law is compulsory, but no master of a vessel coming from sea is compelled to take a pilot after arriving within the line at which Cape Henry bears W. of S., &c. **Towage.** Hampton Roads to Norfolk, or *vice versa*, 350 tons £4 4s 7d, shifting £1 5s 4½d, 1,000 tons £10 11s 5½d, shifting £2 19s 2½d, 2,000 tons £14 16s 0½d, shifting £5 14s 2½d, and other sizes in proportion.

NORRKOPING, Sweden. **Pop.** About 29,000. **Tr.**—I. Coals, soda, cotton, wool, wine, porter, tools, engines, sugar, coffee, tobacco; E. Deals, battens, bar-iron, sails, pig-iron, matches, oats, paper, &c. **Accn.** Vessels of 15ft dft. can

anchor near the quay. Good dry dock, wharf, and facilities for executing repairs. **Charges.** Port charges for sailing vessels and steamers 3^d ton. **Pilotage.** For a vessel drawing 15ft entering from sea at Arko Beacon £4 2s, entering at Hafringe Light £4 16s, entering at Haradskar Light £6 4s, and less in proportion for every foot less dft. These rates are from April 16 to Sept. 16. During the winter season the charge is 25 per cent. more. **Towage.** According to arrangement, from £3 to £10.

NYHAMN, Sweden. Lat. 61° 12' N; long. 17° 10' E. **Accn.** Vessels of 17ft dft. can easily enter harb.

ODESSA, Russia. Lat. 46° 29' N; long. 30° 44' E. **Pop.**

About 280,000. **Tr.**—I. Coal, iron, machinery, tobacco, manufactured goods, earthenware, tea, coffee, and other colonial goods, &c. (sadly hampered by heavy customs duties and other obnoxious formalities); E. Grain, linseed, wool, tallow, cattle, &c. **Accn.** Best artificial Russian harbour in the Black Sea, the depth of water being up to 24ft. The harbour is formed by several stone piers and a long breakwater, which protects it from northerly gales. Very good anchorage in the inner roads. **Charges.** On a vessel 900 to 1,000 tons ballast in, cargo out (grain) £79 7s 1d. Almost daily communication with Constantinople by mail steamers. 3½ days from London by rail. **Pilotage.** By agreement. On a barque of 364 reg. tons entering in ballast, leaving with cargo of wheat, in and out, 16ft 2in dft. £2 8s 9d.

ONEGA, Russia. Lat. 63° 54' N; long. 38° 8' E. **Tr.**—I. Machinery, fish, salt, &c.; E. Deals. **Accn.** At HW. there are 10ft on the bar, and LW. 3ft. **Charges.** Tonnage dues 2d ton. **Pilotage.** In and out 1½ ton. **Towage.** To or from the ballast place £2 8s 9d each way.

OPORTO, Portugal. Lat. 41° 8' 48" N; long. 8° 37' 0" W. **Pop.** About 90,000. **Tr.**—I. Iron, beef, sugar, coffee, rice, hemp, flax, dried fish, coal, codfish, stationery, hardware, cottons, woollens and every description of fancy and manufactured goods, besides colonial produce; E. Wine, oil, shumac, butter, cabinet-work, fruit, wool, cream of tartar, salt, leather, and cork. **Accn.** The depth on bar is uncertain, but it is not safe for any vessel of more than 16ft dft. to cross. **Charges.** On vessel of 107 tons £24 7s. **Pilotage.** Varies, according to the state of tides and weather, say from £7 10s, out and in, to £12 according to tonnage. Steamers are charged much less. When a pilot is detained off the bar he has to be paid 4/ a day. **Towage.** Across the bar, in or out, from £6 15s to £10 2s 6d. From 176½ tons to 220½ tons £11 5s, 220½ to 265 £12 7s 6d, 309½ to 353½ tons £13 10s, 397½ to 442 tons £15 15s, 443 tons £18 and upwards. River service: 88½ to 176½ tons £3 7s 6d, 176½ to 265 tons £4 10s, 309½ and upwards £5 12s 6d.

ORAN. Lat. 35° 44' 21" N; long. 0° 41' 2" W. **Pop.** 75,000.

Tr.—I. Manufactured goods, wine, butter, and cheese; E. Wheat, barley, cotton, wool, seeds, esparto grass, cattle, hides, tobacco. **Accn.** Old and new harbours, formed by an inner and outer mole. Least depth in old harb. 18ft, av. depth in new harb. 30ft. **Charges** on a vessel of 200 reg. tons £8. **Pilotage.** On British vessel of 200 reg. tons £1 5s. **Eng. Brokers.** Kuhlmann, Ricca fils, Roux, Saunier.

OSCARSHAMN, Sweden. Lat. 57° 16' N; long. 16° 28' E.

Pop. About 5,800. **Tr.**—I. Coals, ryce,

flour, and colonial goods; E. Pit props, planks, staves, battens, and oats. **Accn.** Small harb., which can admit vessels of 19ft dft, excellent anchorage, and good dry dock. **Charges.** Harb. dues 1d ton; custom-house dues 1½d; light dues, 4d cargo, 2d ballast. **Pilotage.** In and out, for vessels of 13ft dft. £1 6s 6½d. **Towage.** For vessels of 200 tons reg., in and out, about £2 10s.

OSTEND, Belgium. Lat. 51° 15' N; long. 2° 26' E. **Pop.** About 20,000. **THW.** oh 25m; Sp. rise 19ft; N. 15ft. **Tr.**—I. Coal, salt, colonial produce, manufactured goods, guano, and timber; E. Corn, cloves, seed, cattle, fruits, potatoes, flax, &c. **Accn.** Vessels drawing 16ft can always enter at HW., and some drawing 20ft have gone in during ST. 6ft on the bar at LW., and same inside the harbour. Sp. rise 14 to 16ft; N. rise 11 to 12 ft. Ostend ranks second in importance among the Belgian ports. **Charges.** On a vessel of 259 tons £25 1s 9d. **Pilotage.**—

Winter.				Summer.			
In.		Out.		In.		Out.	
£	s. d.	£	s. d.	£	s. d.	£	s. d.
From	1 12 6	1 3 2		1 8 6		1 0 0	
for vessels about 8ft dft. to—							
	6 7 3	4 8 6		5 18 0		8 2 6	

for vessel about 17ft 6in dft. Vessels calling and not performing any commercial operation pay half the above; towed vessels and steamers a little less. **Towage.** Charges for first hour or fraction thereof:—A ship under 100 tons 31/6, two or more vessels under 100 tons 47/6, every vessel above 100 and under 200 tons 35/6, 200 and under 300 40/, 300 and under 400 44/, above 400 tons 60/. For each hour or fraction of an hour after the first hour whatever the number or tonnage of the vessels 15/10s.

OTAGO HARBOUR or PORT DUNEDIN, New Zealand. Lat. 45° 47' S; long. 170° 45' E. **Tr.**—I. Coal, railway materials, manufactured goods, &c.; E. Gold, wool, timber, potatoes, grain. **Accn.** The average depth at LWST. in Otago north or main channel is 18ft; mean rise at HW. about 18ft. Vessels not over 14ft discharge at Dunedin wharves. **Charges.** Light dues 3d to 6d ton. Port charges, half-yearly 2d to 6d ton. Harb. master's fees 1d ton. Wharfage, steamers ½d, sailing ¼d ton. **Pilotage.** In and out, sailing vessels without a tug 6d, steamers 4d; sailing vessels with a tug 4d reg. ton. In addition to these rates there is a charge of 15/ day for the first 3 days, and 10/ day after the first 3, for any period that a pilot might be detained on board any vessel, whether by stress of weather, quarantine, or otherwise. Vessels in distress, and whaling vessels putting into port through stress of weather, for water or provisions, or to refit, are to be exempt from pilotage, except when the services of a pilot are actually made use of.

OWEN ANCHORAGE.—See Swan River.

PALAMOS, Spain. Lat. 41° 51' N; long. 3° 6' E. **Accn.** At the end of the mole there are 20 to 21ft and inside 12 to 18ft of water. **Pilotage.** Voluntary, 16/8.

PALERMO, Sicily. Lat. 38° 8' 15" N; long. 13° 22' 12" E. **Pop.** 250,000. **Tr.**—I. Cotton, woollen, silk, and linen goods, coals, cereals, hides and skins, animals, and animal produce, petroleum, metals, colonial products, &c.; E. Green and dried fruit, shumac, sulphur, oils, manna, tartar, lemon juice, rags, wine, &c. **Accn.** 9 to 10 fms of water in bay. Vessels

drawing 18ft can anchor at the mole. There is a hydraulic dock 287 feet in length, and three graving docks. **Charges.** Port charges on a vessel 275 tons, £15 16s 8d. **Pilotage.** Optional, but if a pilot is required, only an authorised one can be called. From 12/8 for vessels up to 50 tons to £2 3s 6d for vessels of 401 to 500 tons. For every 100 tons over 500, 2/4½ extra.

PANAMA, U.S. Columbia. Lat. 8° 56' 56" N; long. 79° 31' 12" W. **Pop.** About 13,000. **Tr.**—I. Coal, confectionery, olive oil, clothes, candles, wheat, salt meat, iron manufactures, perfumery, &c.; E. Mother-of-pearl, pearls, leather, skins, caoutchouc, tortoiseshell. **Accn.** The inner anchorage is in 2 fms, about a mile off the shore, the outer is in 3½ to 4 fms, about 2 miles off, bottom of mud. Vessels drawing 20ft can coal at Perico, an island in the bay. **Pilotage.** No pilot is necessary.

PARA (or BELEM), Brazil. Lat. 1° 30' S; long. 48° 23' 12" W. **Pop.** 35,000. **Tr.**—I. Provisions, petroleum, furniture, lumber, dry goods, hardware, wines, &c.; E. Indiarubber, annatto, nuts, balsam, hides, cocoa, sugar, piassaba, sarsaparilla, &c. **Accn.** The port is about 70 miles from the mouth of the river, but is accessible to the largest ships. Vessels moor about ¼ of a mile from the town in 12 to 22ft. of water. At the wharves there is a depth of 6 to 7ft. at low water. There is a gridiron for vessels up to 600 tons. **Charges.** Expenses of a vessel 335 tons, cargo in and ballast out, about £80. **Pilotage.** Compulsory both ways. In, about £7, out £9.

PARAIBA, Brazil. Lat. 7° 06' S; long. 34° 53' W. **Pop.** 13,000. **Tr.**—E. Cotton, sugar, hides, cotton-seed, &c. **Accn.** 18ft can be carried over the bar at LW. Vessels drawing not more than 14½ft when loaded can load alongside wharf. In extra springs vessels drawing 15½ft can leave the wharf. **Pilotage.** For a vessel of 200 reg. tons; 12ft dft. £4 14s 6d, and for every fraction of 50 tons or foot of water increase, e.g., a vessel of 205 tons, 12ft tin dft. pays £5 3s 6d. Charged both in and out. Vessels remaining in quarantine at Cabedello pay one-third less, and vessels going up to the Bridge of Sanhana one-third more.

PARRSBORO, N.S. Lat. 45° 23' N; long. 64° 20' W. **Tr.**—E. Lumber. **Accn.** Safe port for a vessel drawing 16ft at ST. Vessels load alongside wharves on a mud bottom. A pilot should be engaged. **Charges.** Dues and charges on a vessel of 400 reg. tons about £10 8s 4d. Wharfage 2/1 day.

PASAGES, Spain. Lat. 43° 19' 20" N; long. 1° 55' 20" W. **Pop.** 3,000. **Tr.**—I. Coals, cotton, &c.; E. Ore, cider, wine, minerals, fruit, &c. **Accn.** Anchorage depth of 30ft at LW. Vessels of 1,000 tons can discharge alongside of quay. **Pilotage.** Compulsory for coming in, but not for going out. For coming in at San Sebastian and Pasages:—

	1st Boat.	2nd Boat.	Pilot Dues.
	£ s. d.	£ s. d.	s. d.
Under 50 tons	0 10 9	0 10 4	8 4
From 50 to 100 tons	1 2 6	0 16 3	8 4
" 100 to 200 "	1 10 0	1 4 4½	8 4
Above 200 tons	1 17 9	1 12 6	8 4
From the anchorage to the wharf:—			
Under 50 tons	0 9 7	0 9 7	4 2
From 50 to 100 tons	0 19 10	0 13 8	4 2
" 100 to 200 "	1 6 4	1 0 6	4 2
Above 200 tons	1 13 6½	1 5 0	4 2

For going out during the day :—

	1st Boat.	Pilot Dues.
	£ s. d.	s. d.
Under 50 tons	0 8 5½	8 4
From 50 to 100 tons	0 1 10½	8 4
„ 100 to 200 „	1 5 4	8 4
Above 200 tons	1 8 1½	8 4

For going out during the night :—

Under 50 tons	0 12 11	8 4
From 50 to 100 tons	1 5 10	8 4
„ 100 to 200 „	1 10 11	8 4
Above 200 tons	1 17 8½	8 4

Towage. The first boat reaching the vessel must be employed, each man in her is paid 2/6 sterling. The employment of other boats is optional, and the pay only 1/10½ man.

PATRAS, Greece. Lat. 38° 14' 47" N; long. 21° 44' 47" E. Pop. About 40,000. Tr.—I. Woollen and cotton manufactures, grain, sugar, timber, staves and hoops, sulphur, iron, hides and leather, coffee, codfish, rice, and coals; E. Currants. **Accn.** There is a mole about 800ft long, at the extremity of which the depth is about 4 fms. **Charges:** Vessels under 5 tons are free of dues. Port dues ½d ton if cargo only landed, 1½d if landed and shipped. Water plentiful, 1/6 per 60 galls. Com. and brokerage 5%. **Pilotage.** From 8/8 to 20/ for bringing the vessel to her anchorage.

PENANG, India. Lat. 5° 24' 30" N; long. 100° 21' E. Pop. 111,000. Tr.—I. From England various kinds of piece goods, iron, cutlery, &c.; E. Pepper, arrow-root, cassava flour, cloves, coffee, fish-maws, hides, horns, sugar, tapioca, tortoiseshell, betel nuts, rattans, gutta percha, indiarubber, tobacco, and some gold brought by the Malay proas from the main Sumatra, Java, and other islands to the eastward, and for which they receive opium, piece goods, arrack, dollars, &c. **Accn.** The anchorage is considerably sheltered. **Charges.** Light dues, there is a small charge for lights, but no anchorage dues, or other port dues. **Pilotage.** No pilot dues when vessels enter by the north channel, but by the south channel they pay 3/1½d per foot. On a vessel of 268 tons leaving Penang with a miscellaneous cargo of pepper, sugar, rattans, &c., in or out (optional) £1.

PENCO.—See Concepcion Bay.

PENSACOLA, U.S. Lat. 30° 20' N; long. 87° 16' W. Pop. 11,000. Tr.—I. Salt, beer, coal, sugar, molasses, and West Indian fruits; E. Pitch pine, sawn and hewn timber, and lumber. The timber is principally exported to Great Britain. The charters are usually made in England, vessels carrying coals to the West Indies and Mexico, and from thence in ballast to Pensacola. Lumber is largely exported to Cuba and other West Indian islands, Mexico, Brazil, and the river Plate. **Accn.** At mean HW. depth on bar is 22ft near the channel, from the bar to the dock-yard average depth is 28ft, and from the latter to town 31ft; alongside the wharves at Pensacola the depths vary from 16ft to 20ft. **Charges:** On vessel of 636 reg. tons, ballast in and cargo out £404. **Pilotage.** 6 to 10ft dft. 12/8½; 10 to 14ft dft. 16/11; 14 to 20ft dft. £1 1s 1½d; 20 and upwards £1 5s 4½d foot. **Towage.** From outside bar 7½d, inside bar 5d, to sea, loaded rod ton.

PENAMBUCO, Brazil. Lat. 8° 4' S; long. 52° W. Pop. 120,000. Tr.—I. Cotton and linen clothes, hardware, cutlery, silks, wine, flour, salt fish, &c.; E. Cotton, sugar, rum, hides, and dyewoods. **Accn.** No vessel drawing more than

14½ ft can enter at NT., or more than 18½ ft at ST. The great bar has 20 ft over it at HWST. Immediately northward of the "Recife," outside the harbour, is a basin called the "Poço," or Well, having a depth of 20 ft at LW. Here vessels of more than 14 ft dft. lighten to go inside and take in the last part of their cargoes. **Charges.** Average on vessel with cargo, in and out, about £1 2s 6d reg. ton. Cost of victualling and repairing vessels is heavy. Dues and charges on vessel drawing 13½ ft £180. **Pilotage.** On vessel of 237 reg. tons, cargo of fish in and sugar out, 13½ ft dft., pilotage inwards and mooring £12 16s 6d, outwards £11 8s. **Towage.** Inward and outward the same, but not compulsory. For the first English or American 100 tons £3 7s 6d; and for each ton in excess about 2½ d. For the use of hawser, if furnished by the tug, 20 per cent. is added to the above. For towing a lighter to where the vessels usually anchor and bringing it back £5 12s 6d.

PHILADELPHIA, U.S. Lat. 39° 57' N; long. 75° 10' W.

Pop. About 1,000,000. **Tr.**—I. All kinds of general merchandise; E. Breadstuffs, provisions, petroleum, cotton, tobacco, oilcake, staves, &c. **Accn.** Has an excellent harb. capable of receiving the largest vessels afloat; 27 ft of water at HT. Three graving docks 462 ft, 220 ft, and 125 ft long respectively, and three patent slip railways. **Charges.** Wharfage dues 16/, (ship) barque, &c. 12/ per day. **Pilotage.** Varies according to distance and dft. Minimum: inwards 12 ft dft. £8 10s 9d; outwards 12 ft dft. £7 12s 3d. Maximum: inwards 27 ft dft. £26 2s 6d; outwards 27 ft dft. £17 2s 7d. Every pilot detained by master, owner, or consignee, or by the ice, is entitled to 12/8½ day. Every pilot obliged by the ice or stress of weather to proceed to another port is entitled to pilotage, and if there discharged to 4d for every mile he has to travel home. Every vessel obliged to receive a pilot is required to pay £2 2s 3½ d winter pilotage from Nov. 1 to April 1, both days inclusive, except such vessel is towed by steam to or from the buoy of the Brown. Spanish, Portuguese, Italian, Russian and South American ships pay 10/8 in addition to other pilotage. **Towage.** Varies according to distance and tonnage, for 16½ miles, 70 tons 9d ton, to 1,300 tons and upwards 5½ d ton; to 103 miles, 70 tons, 2½ ton, to 1,300 tons and upwards, 1/5½ ton.

PHILIPPEVILLE, Algiers. Lat. 36° 53' N; 6° 54' E.

Pop. 28,000. **Tr.**—I. Coal, timber, manufactured goods; E. Barley, wheat, wool, wine, fruits. **Accn.** Vessels of 16 ft dft. can load alongside quays. **Pilotage.** Sailing ships about 1d per ton, steamers half. **Eng. Broker.** A. Ricoux.

PICTOU, N.S. Lat. 45° 41' 25" N; long. 62° 39' 26"

W. Pop. 4,000. **Tr.**—E. Coals, produce, &c. **Accn.** There are three good loading places at which steamers of 1,700 to 1,900 tons load. The harbour is a good and safe one, easy of access to strangers. Vessels drawing 22 ft can cross bar at HW. **Charges.** Labour 5/2½ to 6/3 day. Ballast 2/1 ton. Harb. dues ¾ d ton. Hospital 1d ton. Water ¼ d gall. Coals cheap. Wharfage on goods landed ¾ d barrel bulk. No light dues. **Pilotage.** 80 and under 150 tons, in £1 5s, out 16/4; 150 and under 300, in £2 1s 8d, out £1 5s; 300 and under 400, in £2 10s, out £1 13s 4d; 400 and under 500, in £2 18s 4d, out £1 17s 6d; 500 and under 600, in £3 2s 6d, out £2 1s 8d; 600 and under 800, in £3 6s 8d, out £2 5s 10d; 800 and under 1,000, in £3 10s 10d, out £2 10s; 1,000 and upwards, in 1d, out ¾ d ton. All steamers

rated at net tonnage. After coming to in the harb., all vessels requiring pilots in going up to the loading wharves at the east or middle rivers pay an additional sum of $1/0\frac{1}{2}$ d foot dft., and the same down the said rivers. Vessels bound in and spoken to by a pilot pay half pilotage, if his services are not required. Vessels bound out and not requiring a pilot pay half pilotage to the Pilotage Authority. Steamers in or out pay the same as sailing vessels. Vessels making the harb. are free from compulsory pilotage inside an imaginary line drawn from Cole's Point to McKenzie's Head. The Pilotage Authority may remit compulsory pilotage dues to steamers carrying Her Majesty's mails, in whole or in part. **Towage.** $1\frac{1}{2}$ d ton from outside. In harb. for mooring $\pounds 1$ or 10d, or by agreement.

PILLAU, Germany. Lat. $54^{\circ} 33' 39''$ N; long. $19^{\circ} 52' 30''$ E. Pop. 4,000. Accn. About 20ft on the Pillau bar. The depth in the channel from Pillau to Königsberg is from 11 to 13ft. **Pilotage.** See Königsberg. **Towage.** See Königsberg.

PIRÆUS, Greece. (Athens.) Lat. $37^{\circ} 56' 10''$ N; long. $23^{\circ} 38' 40''$ E. Pop. 35,600. Accn. The port is capable of holding the largest vessels. A floating dry dock. **Charges.** Moderate. **Pilotage.** In and out and mooring 60/. There is no fixed tariff, and an agreement should be made.

PISAGUA, Peru. Lat. $19^{\circ} 32'$ S.; long. $70^{\circ} 15'$ W. The bay is deep, and vessels can anchor close inshore in 20 to 30 fathoms. The anchorage is good, and, as a rule, there is little swell in the bay. Vessels are discharged and loaded by launches, which in their turn are unloaded by boats or balsas. **Charges.** Mooring about 1d. per ton. Ballast about 6d per ton.

POINT DE GALLE, Ceylon. Lat. $6^{\circ} 1'$ N; long. $80^{\circ} 14'$ E. Pop. 10,000. Tr.—I. Rice, coal, &c.; E. Coffee, cinnamon, cocoanuts, cocoanut oil, arrowroot, curry, stuffs, glue, dried and salted fish, hides, elephants, plumbago, pearls, &c. Accn. There is sufficient water for the largest ships, but the harb. is plentifully dotted with rocks. Small vessels drawing 6ft of water can anchor at the end of the pier at LW. **Charges.** There is no charge for tonnage or harb. dues for vessels coming to the port seeking or sailing in ballast. **Pilotage.** In and out 600 tons and upwards $\pounds 3$; 400 and under 600, $\pounds 2$ 5s; 200 and under 400, $\pounds 1$ 10s.; 100 and under 200, $\pounds 1$ 2s. Pilots detained on board any vessel longer than 48 hours are entitled to claim 8/ for every day's detention after that time.

POINTE-A-PITRE, Guadeloupe, W.I. Lat. $16^{\circ} 20'$ N; long. $61^{\circ} 20'$ W. Pop. 18,380. Accn. Spacious harb., 36ft, in the channel. Vessels drawing 26ft may lie close to the town; vessels drawing 14ft can discharge at the quay. **Charges.** Vessels trying the markets may come in free of all charges. **Pilotage.** On three vessels as follows:—In and out, 190 tons $\pounds 5$ 14s 3d; 291 tons $\pounds 7$ 16s; 449 tons $\pounds 9$ 17s 6d. **Towage.** By steamer, minimum $\pounds 4$; up to 1,000 reg. tons $4\frac{1}{2}$ d ton; every ton over, $2\frac{1}{2}$ d. By rowboat and four hands, $\pounds 1$. Eng. Brokers. Ferlande, Maillard, Thionville.

POMERON, Portugal. Lat. $37^{\circ} 10'$ N; long. $7^{\circ} 15'$ W. Pop. 4,000. Tr.—E. Sulphur, ore, &c. Accn. Vessels drawing 16ft have reached Pomeron. **Charges.** Port charges on a vessel of 414 tons reg. (including pilotage over the bar

up and down river) about £11. Total expenses of a vessel of 400 tons loading sulphur-ore (including pilotage and towage both ways) about £55.

PONDICHERRY, India. Lat. $11^{\circ} 56' N$; long. $79^{\circ} 50' E$. Pop. 60,000. Tr.—E. Indigo, rice, tobacco, cotton. Accn. Anchorage in 6 or 8 fms, $\frac{1}{2}$ mile from town. Charges. Tonnage dues 2d per ton; light dues $1\frac{1}{2}$ d per ton; anchorage dues 1/ per ton.

PONTA DEL GADA, St. Michaels, Azores. Lat. $37^{\circ} 45' N$; long. $25^{\circ} 41' W$. Pop. 23,000. Tr.—I. Coals, dry goods, hardware; E. Oranges, lemons, wheat, Indian corn, wines, beans, potatoes. Accn. Anchorage in 15 to 30 fms. There is a mole, inside of which vessels of any size can lie in comparative safety. Floating dock, capable of raising a vessel of 1,400 tons. Charges. On a vessel of 100 tons about £30. Pilotage. Vessels of less than 200 tons, 10/10; less than 400 tons, 13/6; less than 800 tons, 16/6; less than 1,200 tons, 17/10; over 1,200 tons, £1 2s. 6d.

PORT ADELAIDE, South Australia. Lat. $34^{\circ} 56' S$; long. $138^{\circ} 36' E$. Pop. 30,000. Tr.—E. Wool, wheat, bark, gold, copper and lead ores, salted hides, tallow, gums, wine, fruit, &c. Accn. 22ft on the outer bar at LWOST., and 20ft on the inner bar. Average rise and fall at ST. 8½ft. The wharves at Port Adelaide are about two and a half miles long, the depth alongside varying from 18ft to 24ft at LW. Charges. Light dues 1d reg. ton, in or out. Wharfage 3d reg. ton. Expenses of a vessel of 1,000 tons reg. £102, including light dues, wharfage dues, pilotage in and out, and harb. pilotage (optional). Dft. of water has nothing to do with these charges. Pilotage. Compulsory: Every vessel taking a pilot, not ex. 100 tons, in or out £2 10s, for every reg. ton above 100 tons, in or out $1\frac{1}{2}$ d, provided that in any case the pilotage of any vessel does not exceed £9, reduced by one-fourth with steam vessels or sailing vessels towed by steamtugs, or part of distance proportionate reduction. For vessels availing themselves of a pilot to or from the anchorage off the Semaphore or Lights Passage—for any distance not ex. three miles—if anchored and afterwards proceeding into harb. the usual charge. Not compulsory: For every vessel taking a pilot, and not above 100 tons, £1, of 100 and not above 300 tons, £1 10s, above 300 and not above 500 tons, £2, above 500 tons, £3. Harb. pilotage, not compulsory: Under 200 tons, mooring or unmooring, 10s, removal 10s; of 200 and not above 300 tons, mooring or unmooring, 15s, removal 15s; 300 and not above 400 tons, mooring or unmooring £1, removal £1 5s; 400 and not above 500 tons, mooring or unmooring £1, removal £1 10s. Every vessel above 500 tons, if moored at a wharf on arrival in harb., mooring or unmooring £1 10s, removal £2; above 500 tons, if moored in stream on arrival in harb., mooring or unmooring £1, removal £2. Pilots if required by master or commander to remain on board shall be paid a fee of £1 1s per day in addition to the ordinary rates, until the ship has crossed the inner bar. Towage. From the lightship at Port Adelaide, not ex. 200 tons £8, every additional ton 6d. From lightship to Lights Passage, below Snapper Point, or from Lights Passage to North Arm, below 200 tons £3, every ton above 6d. From the lightship anchorage to the North Arm, not ex. 200 tons £6, every ton above 4d. From the North

Arm to the Port, not ex. 200 tons £2, every ton above 2d. Towage out, the same rates. When two or more vessels are towed the rates are reduced.

PORT ALFRED, Africa. Lat. $33^{\circ} 36' 9''$ S; long. $26^{\circ} 54' 10''$ E. **Accn.** A vessel of 12ft dft. has entered.

There is 8½ft on the bar at LW. **Pilotage.** In or out, 1/6 foot. **Towage.** Under 50 reg. tons £4; 50 tons and under 75, £5; 75 and under 100, £6; 100 and under 150 £7 10s; 150 and under 200, £9; and for every additional 50 tons or any portion thereof £2 10s. Towage of vessels from St. Mary's Cove to Barrington's Cove or *vice versa* £1 10s; for passengers crossing the bar in the steamtug when visiting vessels at the outer anchorage, each 5s; hire of steamtug per day £10.

PORT AU PRINCE, Hayti. Lat. $18^{\circ} 33' 0''$ N; long. $72^{\circ} 19' 46''$ W. **Pop.** About 27,000. **Tr.**—

Principal E. Coffee, cocoa, logwood, and mahogany. **Accn.** A small basin running north, end of city, called Inner Harb., with 4 to 5 fms of water. **Pilotage.** From 16/8 in and 8/4 out for vessels from 50 to 100 tons, to £3 6s 8d in and £1 13s 4d out for vessels from 301 to 400 tons; above 400 tons £2 1s 8d out.

PORT AUGUSTA, South Australia. Lat. $32^{\circ} 29' 49''$ S; long. $137^{\circ} 47' 28''$ E; 240 miles NW.

from Adelaide. **Tr.**—E. Wheat, flour, copper, wool, and tallow. **Accn.** The best anchorage is in about 6 fms; OSB. rise from 9 to 12ft. **Charges.** Light dues from U.K. 8d ton in and out, mooring dues for every vessel above 500 tons £3. Expenses of a vessel 500 tons £4 3s 4d at 1d ton in, and same out. Use of Government moorings 2/ day. **Pilotage.** From Port Augusta to Point Lowly and *vice versa*, £6. Every ton above 200, 1d. **Towage.** Between Port Augusta and Two Hummock Point (23 miles), 200 tons £8, and 6d each additional ton; to Point Lowly (17 miles further), one-half of the above; additional to Commissary Point (10 miles) one-fourth off; to Douglas Bank (28 miles) one-fourth additional. These rates are for fair weather, and exclusive of the use of hawser.

PORT DARWIN, Queensland. Lat. $12^{\circ} 28' 28''$ S; long. $130^{\circ} 52'$ E. **Accn.** The harb. is suitable

for vessels of the largest tonnage, having deep water. No port charges.

PORT DENISON, Queensland. Lat. $20^{\circ} 0' 50''$ S; long. $148^{\circ} 17' 51''$ E. **Tr.**—E. Wool, tallow,

hides, gold, sheep, skins, &c. **Accn.** There are two channels leading into the harb.; the south with 22ft at LWST.; the north with 14ft; rise of tide 5 to 11ft. Inside the harb. the depth at LWST. is from 10 to 26ft. Vessels drawing 16 to 17ft come alongside the jetty to discharge. **Pilotage.** 4d ton, minimum £1 10s. Foreign-going steamships (not being intercolonial trade vessels) whilst on a foreign voyage, but not carrying cargo coastwise, are allowed a remission of the customary pilotage dues, except in respect of an amount equal to 1/ ton on all cargo landed and shipped.

PORT DUNEDIN.—See Otago Harbour.

PORT ELIZABETH, Africa.—See Algoa Bay.

PORT ELLIOTT, VICTOR, & ROSETTA HARBOURS, South Australia. Lat. $35^{\circ} 34'$ S; long.

$138^{\circ} 39'$ E. **Tr.**—I. Fencing wire, coal, timber, potatoes, groceries, ironmongery, and general goods used by settlers; E.

Wool, copper, bark, wheat, flour, hides, tallow, honey. **Accn.** There are heavy moorings for three vessels in depths varying from 9½ft in shore to 19½ft seaward. Additional moorings have also been placed, affording accn. for five vessels. The outer berth has 30ft, middle 33ft, and inner berth 18ft at OLWST. **Charges.** Expenses of a ship 1,038 reg. tons £45 1s 8d. **Pilotage.** Vessels of 100 to 200 tons £2 in, and the same out, every ton above 200, ¼d ton in and out. For every foot or part of a foot dft. above 9ft, in or out, 10/.

PORT JACKSON, Sydney, N.S.W. Lat. 33° 54' S; long. 151° 11' E. Pop. 333,000. **Tr.**—I.

Wines, spirits, manufactured goods, wearing apparel, hardware, earthenware, saddlery, books, stationery, carriages, tea, sugar; E. Wool, tallow, hides, felts, horns, hoofs, bones, leather, gold, copper, copper ore, tin, tin ore, shale, and pearl shell. **Accn.** At Sydney there is staging with shipping accommodation in from 12 to 26ft at LW. There are also berths where vessels can discharge their cargoes without staging, by lying alongside the wharf with plenty of water. Vessels of 27ft dft. at LWST. or 32ft at HW. can, in fine weather, cross the bar. Sydney is about 4 miles from the bar. Dry dock, two graving docks, and patent slip. **Charges.** Harb. dues: Vessels under 300 tons 20/, and 5/ additional for every 100 tons up to 1,000, over 1,000, £3. Expenses of an American vessel of 1,200 tons loading 1,400,208 lbs. of wool and 1,000 casks of tallow, including commissions and expense on inward cargo, £1,300. **Pilotage.** 4d ton in and out. Pilots detained in quarantine £1 per day, 8/ of which will be charged to the vessel. **Towage.** To or from sea, under 150 tons £2 10s, removals 15/; 150 tons and under 200, £3, removals £1 1s; 200 and under 250, £3 10s, removals £1 1s; 250 and under 300, £4 4s, removals £1 10s; 300 and under 400, £4 10s, removals £1 10s; 400 and above, to and from sea 8d ton, one way 6d ton. For one removal in or out from wharf, in addition to each sea towage, no extra charge is made. Vessels can tow from Sydney to Newcastle by special arrangement—say from £25 for a vessel of 250 tons, up to £60 for vessels of 1,200 tons to 2,000 tons. The lump sum in these cases includes all removals and outward sea towages when laden.

PORT LOUIS, Mauritius. Lat. 20° 10' 0" S; long. 57° 30' 0" E. Pop. 75,000. **Tr.**—I. Provisions,

cotton stuffs, iron, rice, hardware, cutlery, machinery, copper, linens, wine, coals, guano, &c.; E. sugar, rum, molasses, ebony, vanilla, cocoanut oil, &c. **Accn.** The harb. can be entered by the largest ships. Three dry docks, 318ft, 318ft, and 378ft in length, and slip for vessels up to 350 tons. **Charges.** On barque of 364 tons for 19 days £31 10s. **Pilotage.** Vessels remaining at the Bell Buoy 2/6 foot; vessels entering the harb., pilotage inwards, and mooring 5/ foot; outwards and unmooring 5/ foot. Vessels under 100 tons burthen entering the harb. are not required to take a pilot. **Towage.** By port office steamer, inwards or outwards:—Under 100 tons £3; 100 to 150, £4; 150 to 200, £5; 200 to 400, 6d ton; above 400 each additional 100 tons £1.

PORT LYTTTELTON, New Zealand. Lat. 43° 35' 32" S; long. 172° 49' 30" E. **Accn.** Vessels of 24ft dft. of water can moor alongside the jetties and discharge direct into the railway trucks. **Charges.** Light dues 2d ton. **Pilotage.** (Compulsory) 3d per reg. ton.

PORT MOODY, Brit. Col. Lat. $49^{\circ} 18' N$; long. $122^{\circ} 46' W$. **Tr.**—I. Railway material; E. Lumber, shingles, &c. **Accn.** A wharf and a large wooden structure 1,370ft in length, and in breadth at the centre 153ft. The lowest depth of water along the wharf at all stages of the tide is 26ft, save only near the shore extremities. **Pilotage.** (Compulsory) under 10ft 12/6 foot 10ft, and over 16/8 foot. **Towage.** From and to Royal roads 15/ to 20/.

PORT NATAL, Africa. Lat. $29^{\circ} 52' 48'' S$; long. $31^{\circ} 2' 49'' E$. **Tr.**—E. Wool, ivory, cotton, sugar, arrowroot, ostrich feathers, beans, maize, hides, horns, salt beef, &c. **Accn.** Depth in inner harb. 12 to 18ft LWST. Av. depth on the bar leading to inner harb. HWST 18ft, NT. 17ft. No vessel should attempt to cross the bar without a pilot. **Pilotage** (compulsory). Vessels entering and sailing out of the harb. as follows:—From 100 to 200 tons £3; 200 to 300, £4; 300 to 500, £5. Vessels in ballast to pay half these rates. Pilots attending to shift berths in harb., a fee equivalent to half the rates on the scale. If pilot remains on board, 10/ per day, with board and accommodation free of charge. **Towage.** In and out of harb. from and to outer anchorage as follows:—Under 150 tons £10; from 150 to 200, £12; 250 to 300, £14; above 300, £15; in stormy weather an extra charge of £2 is made within the outer anchorage, or a circle of 11 fathoms of water around it, for vessels up to 200 tons, and 1/ ton for each ton over, in moderate weather a charge of £4 mile, and in blowing weather of £6 mile for towing beyond anchorage; when goods are taken on board the tug, 7/6 ton is charged; for towing lighters in or out, £4 for one lighter for each trip, and £1 10s for each additional lighter; any detention of the tug by ships, passengers or boats, over one hour, £3 for each hour entered on.

PORT NOLLOTH, Africa. Lat. $29^{\circ} 15' 50'' S$; long. $16^{\circ} 52' 20'' E$. **Tr.**—I. Manchester goods, silks, woollens, hardware, groceries; E. Hides, skins, copper-ore, ostrich feathers, horns, &c. **Accn.** A pier with 11ft at end. At LW. vessels of 8ft dft. only can enter. **Pilotage.** Over the bar, £1 1s. **Towage.** Cape Copper Mining Co., Ltd., have a small tug.

PORT OLIVIERI, Turkey. **Tr.**—E. Oil, pine, timber, silk, grapes, figs, cotton, and pitch. **Accn.** Only a cable broad in parts of the entrance, and is only suitable for vessels of 11ft dft. On the SE. coast; is the principal harb. in the island. **Pilotage.** On a vessel of 133 reg. tons, empty casks in and cargo of olive oil out, in and out £1 1s 8d.

PORT PHILIP, Victoria. Lat. $37^{\circ} 49' 5'' S$; long. $144^{\circ} 58' 35'' E$. **Accn.** The least depth of water in the fairway channel to Port Philip is 27ft. **Charges.** Port dues 1/ ton once every six months. Charges and dues on a vessel 1,199 reg. tons with 1,000 tons of cargo £451 6s.

PORT ROYAL, U.S. Lat. $32^{\circ} 15' N$; long. $80^{\circ} 40' W$. **Pop.** 500. **Tr.**—I. Salt and manufactured fertilisers; E. Cotton, cotton seed, timber, lumber, phosphate rock, and manganese ore. **Accn.** Vessels drawing 22ft can enter the harb. at NT. and moor alongside wharves. **Charges.** Harb. master's fees 12/6 per vessel. **Pilotage.** Same as Beaufort. **Towage.** Same as Beaufort.

PORT SAID, Egypt. Lat. $31^{\circ} 15' 35''$ N; long. $32^{\circ} 19' 20''$ E. Pop. About 8,000. Tr.—I. Mainly coals, provisions, and chandlery; E. Cotton and cotton seeds, with occasional lots of East India goods in transit. Accn. An artificial harb. well sheltered by breakwaters, and with a sufficient depth of water for the largest ships. Charges. On a vessel of 547 tons about £43. Pilotage. On a steamer of 547 reg. tons entering with cargo of 808 tons coal, drawing $16\frac{1}{2}$ ft. aft. and $15\frac{1}{2}$ ft. forward, harb. dues and pilotage £3 14s 3d. Towage. On vessel of 1,000 tons about £20.

PORT VENDRE, France. Lat. $42^{\circ} 30' 59''$ N; long. $3^{\circ} 7' 24''$ E. Pop. About 2,100. Accn. The least depth close to the quays is 16 ft, with an average of 22 ft. Towage. Same as Marseilles.

PORTLAND, Me. U.S. Lat. $43^{\circ} 27' 32''$ N; long. $70^{\circ} 12' 9''$ W. Pop. About 40,000. Tr.—E. Wheat, peas, flour, pork, lard, lumber, &c. Accn. Has a large, deep, and well-sheltered harb.; vessels of the largest class enter; ships come up to lower wharves drawing 20 ft at L.W. Two dry docks. Charges. On a vessel of 1,050 tons reg., ballast in, lumber out, £200. Pilotage. Pilotage not compulsory. The usual rate is about $8/4$ ft, except when an agreement is made, which can be done for $4/2$ ft, or even less. Towage. Rates low.

PORTO MULA, Crab Island, W.I. Pop. About 1,100. Accn. Harb. formed by two reefs extending about three-quarters of a mile. Vessels of 16 ft dft. can enter the harb. Porto Mula is situated on the north coast of the island.

PORTO TORRES, Italy. Lat. $40^{\circ} 50'$ N; long. $8^{\circ} 24'$ E. Pop. About 1,500. Tr.—E. Oil, wine, cereals, skins, and cattle, the latter almost exclusively to Marseilles. Accn. Depth of water sufficient for vessels up to 350 tons. Charges. On vessel of 200 tons about £10. Pilotage. £2 7s 6d, including mooring.

PORTSMOUTH, U.S. Lat. $43^{\circ} 4' 35''$ N; long. $70^{\circ} 45' 50''$ W. Pop. About 13,000. Tr.—I. Salt, coal, general merchandise; E. Bricks, lumber, hay, apples, potatoes. Accn. At majority of wharves from 20 to 24 ft L.W.; a naval station. Pilotage. Vessels under 12 ft dft. $4/4\frac{1}{2}$ foot; between 12 and 15 ft, $5/5\frac{1}{2}$, and over 15 ft, $6/8\frac{1}{2}$ foot. No compulsory pilotage. Towage. In or out, between 500 and 1,000 tons £10 11s 5½d, under 500 tons £6 6s 10½d.

PROGRESO, Yucatan. Lat. $21^{\circ} 17'$ N; long. $89^{\circ} 39'$ W. Tr.—E. Hemp, hides, hair. Accn. 10½ ft of water at pier HT. Charges. Light dues; sailing vessels £5 2s 6d, steamers £10 5s; no charge if arriving in ballast and loading here.

PROVIDENCE, U.S. Lat. $41^{\circ} 49'$ N; long. $71^{\circ} 24'$ W. Pop. 70,000. Tr.—I. Cotton, lumber, coal, salt, dyewoods, chemicals, iron, wood, &c. Accn. Vessels of 900 tons can safely enter, and come close to the wharves. Two dry docks. Charges. On a brig of 247 tons, cargo in and ballast out, £120. Pilotage. On a brig 247 reg. tons cargo in and ballast out, in $14\frac{1}{2}$ ft, £4 11s 3½d; out $14\frac{1}{2}$ ft, £2 17s 0½d. Towage. On a brig 247 reg. tons, cargo in and ballast out, in £2 10s 9d, to New York through the sound £52 17s 3½d.

PUERTO CABELLO, Venezuela. Lat. $10^{\circ} 30'$ N; long. $68^{\circ} 00'$ W. Pop. 8,000. Tr.—E.

Cedar, mahogany, ore, coffee, cotton, cocoa, indigo, hides, deer skins, and fustic. **Accn.** There are quays alongside which vessels can load. There is sufficient water for the largest class of vessels. **Charges.** On vessel 271 tons general cargo £17 6s 7d. Light dues 3d ton. Wharfage 1d ton daily.

PUERTO CORTES, Honduras. Lat. $15^{\circ} 51\frac{1}{4}'$ N; long. $87^{\circ} 56\frac{1}{2}'$ W. Pop. 1,000. Tr.—I.

From England cotton, woollen, linen, and silk goods, liquors, wines, hardware, &c.; from U.S. lumber, provisions, cotton goods, and hardware; E. Hides, deer skins, sarsaparilla, indiarubber, cattle, horses and mules, gold, mahogany and cedar, bananas, &c. **Accn.** A fine spacious harb. with good anchorage in 6 to 9 fms. **Charges.** On steamers, £6. On sailing vessels; tonnage dues (25 cents.) 1/ per ton in addition to £6 for agent's and customs charges. Steamers pay no tonnage dues, neither do sailing vessels, in ballast. **Pilotage.** As per agreement.

PUERTO DE PLATA, Hayti. Lat. $19^{\circ} 46'$ N; long. $70^{\circ} 38'$ W. Pop. 3,000. Tr.—I. Flour, codfish, lard, petroleum, lumber, &c.; E. Hides, honey, sugar, mahogany, and lignum vitæ. **Accn.** Vessels drawing 12ft anchor about a quarter of a mile from the head of the harb., and vessels of larger dft. farther out, in about 5 fms. **Charges.** On steamer of 937 reg. tons, 3 days £148 17s 7d. Tonnage dues $\frac{4}{2}$ ton. Sailing vessels about same as steamers. **Pilotage.** On a vessel of 177 reg. tons entering at Puerto Plata and proceeding to Cabarete to load mahogany £2 4s 3d; to and from Cabarete £7 5s 10d. **Towage.** On a vessel of 177 reg. tons £2 1s 8d.

PUERTO JOBOS, W.I. Lat. $17^{\circ} 50'$ N; long. $66^{\circ} 14'$ W. **Accn.** A fine landlocked harb.; 3 to 3½ fms. in the harb.; rise of tide about 2ft. **Charges.** On a vessel of 250 tons about £10. **Pilotage.** On a vessel of 247 reg. tons, captain of port and pilotage £5 1s 7½d.

PUERTO PONCE, W.I. Lat. $17^{\circ} 56'$ N; long. $60^{\circ} 29'$ W. Pop. 17,000. Tr.—I. Breadstuffs, provisions, dry goods, lumber, petroleum, liquors, iron, cooperage; E. Sugar, molasses, tobacco, hides, cattle, coffee, starch, oranges, and cotton. **Accn.** No vessel drawing more than 16ft should charter for this port. **Charges.** On a vessel of 320 tons about £178. **Pilotage.** From £1 17s 6d for vessels up to 80 tons, in and out payable in Spanish money, to £6 5s for vessels of 1,000 tons; upwards £8 6s 8d; changing berth each time, quarter pilotage rates; all vessels entering or leaving port between sunset and sunrise, double rates.

PUGWASH, N.S. Lat. $45^{\circ} 52'$ N; long. $63^{\circ} 45'$ W. Pop. 2,000. Tr.—E. Timber and agricultural produce. **Accn.** Vessels lie securely in a small enclosed basin with a depth of 6 fms. 16ft at LWOST. on bar; Sp. rise 7ft and N. 4ft. **Charges.** Harb. dues £1. **Pilotage.** On a vessel of 306 reg. tons, in and out £5. **Towage.** £6 5s to £10 10s, according to size.

QUEBEC, Canada. Lat. $46^{\circ} 49'$ N; long. $71^{\circ} 31'$ W. Pop. 60,000. Tr.—I. Dry goods, groceries, salt, coals, hardwares, liquors, &c.; E. Timber, deals, grain, &c. **Accn.** A safe and commodious harb. The largest vessels can lie alongside the wharves. Eight floating dry docks, one graving dock, and one patent slip. **Charges.** Harb. dues on vessels, under 1,000 tons

½d, over 1,000 tons ½d ton per day. Tonnage dues 2½d reg. ton. Dock dues 10d. ton. Charges on a vessel of 538 tons inwards about £87. Ships are liable for moorage and wharfage, unless stipulated. Wharfage about 6½d ton. **Pilotage.** Varies from 6/ foot to 28/ foot according to distance and time of year. **Towage.** Varies according to distance and size of vessel. For vessels of 300 tons £ to 9s 2d; 1,800 tons £46 17s 6d. If employed by day, first day £52 1s 8d; every subsequent day, £41 13s 4d. If by hour, first hour £5 4s 2d; every subsequent hour £2 12s 1d. After November 1 a special arrangement must be made for towages up and down. Towing only to or from Quebec 50 per cent. additional.

QUILLEBŒUF, France. River Seine. Pilot station. Eng. Broker. Le Bret.

QUILLIMANE, Africa. Lat. 18° 1' 24" S; long. 36° 59' 27" E. Pop. 3,500. Accn. 9ft of water on bar; tides rise 16ft. Vessels of 16ft have recently crossed bar. **Pilotage** £2 10s for each vessel. **Towage** from £15 to £25.

QUILLON, India. Lat. 8° 35' 30" N; long. 76° 36' E. Pop. 30,000. Tr.—I. Piece goods; E. Coconut oil, coir mats, yarn, and fibre. Accn. Anchorage 4 to 5 fms.

RAGUSA, Austria. Lat. 42° 38' 30" N; long. 18° 5' 30" E. Pop. 9,000. Tr.—I. Manufactured goods; E. Soap, silk, olive oil, malmsey wine, leather, and tobacco. Accn. Has space for a few small vessels. The port is a cove on the east side of the town. About 3 fms. **Charges.** Port charges, 100 to 200 tons 3d, 200 to 400 tons 4d, 400 tons and upwards, 4½d ton.

RANGOON, Burmah. Lat. 16° 45' N; long. 96° 17' E. Pop. about 134,176. Tr.—I. Manchester piece goods, twist, iron, hardware, common cotton cloths, all European necessities for table and household purposes; E. Rice, timber, cotton, gold, shellac, copper, hides, horns, earth oil, ivory, wood, oil, wax, rubber, amber, precious stones, &c. Accn. Rangoon is accessible to vessels of the largest tonnage. There are 24ft of water on the bar at neaps and 30ft at springs. A gridiron. **Charges.** Port dues 4/, light dues 1/6 per ton. Harb. master's fee (in and out) £5 4s. **Pilotage.** Vessels in tow of steamers pay three-fourths, and steamers half the rates. Inward minimum, 9 to 10ft dft., full £3 12s; quarter 18/; half £1 16s; three-quarters £2 14. Maximum, 25 to 26ft dft., full £55. Outward minimum same as inward. Maximum, 25 to 26ft dft., full £60. Harbour rates:—For mooring and unmooring within the limits of the port £2 12s; placing on or taking off the hard, mooring or unmooring under fairs, docking and undocking, or pilotage into and out of the Pazoondoug Creek, including mooring and unmooring, £3 4s. **Towage.** From 90-horse power to 120, £30, 60 ditto to 90, £20, with additional charge for back steam £10 day.

RETHYMO, Turkey. Lat. 35° 22' N; long. 24° 28' E. Pop. 8,000. Tr.—I. Calicoes, cotton twist, flour, &c.; E. Olive oil, soap, wine, raisins, oranges, &c. Accn. Harb. generally 9ft and sometimes 11ft deep.

REVEL, Russia. Lat. 58° 15' N; long. 22° 30' E. Pop. 50,000. Tr.—I. Cotton, tea, machinery, salt, herrings, coals, and all sorts of merchandise; E. Wheat, rye, oats, barley, linseed, flax, buckwheat, codilla, hemp, hemp yarn, spirits, horse-hair, skins, oil cake, and bone ash. Accn. Merchant harb. has 21ft of water. Vessels drawing 22ft can anchor in man-of-war harb.

Charges. Port charges on a steamer of 800 tons are now only £26 os 8d. **Pilotage.** There are no regular Government pilots, but one can always be obtained from the island of Nargen; he is paid by agreement, generally £1 2s 9d to £2 15s 3d, according to season and weather, and size of ship. On entering the harb., vessels get a harb. pilot, whose fee is 6/6 for vessels under 200 tons; 9/9 for vessels of 200 to 400 tons; 13/ for vessels of more than 400 tons.

RHODES, Turkey. The island lies between lat. 35° 52' N and 36° 28' N; long. 27° 43' E and 28° 18' E. **Pop.** about 28,000. **Tr.**—The only I. in British vessels is coal for the use of the steamers; E. Oil, wax, dried vegetables, skins, and sponges from the neighbouring islands and mainland. **Accn.** Has two harb., the Liman and the Darsena (Arsenal), the Liman 16ft, and the Darsena 13ft. **Charges.** Light dues 1d reg. ton. **Pilotage.** No fixed charges, but vessels usually pay £2 for entering and clearing.

RICHIBUCTO, N.B. Lat. 46° 38' N; long. 66° 55' W. **Pop.** 2,000. **Tr.**—E. Timber, preserved salmon, &c. **Accn.** Vessels drawing more than 15½ft cannot cross bar. Vessels inside load in 18ft water alongside wharves. **Charges.** Tonnage dues 3d ton. Wharfage 4/2 to 6/3 day. **Pilotage.** In or out, 6/3 foot. **Towage.** A steam tug can be had if necessary.

RICHMOND, U.S. Lat. 37° 30' N; long. 77° 26' W. **Pop.** 77,500 (in 1878). **Tr.**—A large quantity of salt in bags is imported; E. Flour in barrels to the Brazils and England in the summer season, tobacco to the Mediterranean. **Accn.** Vessels drawing 16ft can reach Richmond, and those of 18ft dft, can reach City Point at LWST. **Charges.** No wharfage. Harb. dues ½d reg. ton. **Pilotage.** From sea to Hampton Road drawing up to 12ft 10/6½ foot, from 12 to 16ft, 13/3½ foot, from 16 to 18ft, 16/3½ foot. **Towage.** 1/8 reg. ton (up and down) from Hampton Road to Richmond and back to Hampton Road.

RIGA, Russia. Lat. 57° 3' 22' N; long. 24° 1' 30' E. **Pop.** About 170,000. **Tr.**—I. Coffee, cottons, woollens, fruits, herrings, oil, indigo, salt, tobacco, wines, spirits, sugar, &c.; E. Flax, hemp, wheat, rye, barley, oats, linseed, wool, hides, tallow, timber, tobacco, spars, feathers, and hemp seed. **Accn.** Usual depth of water on bar 16 to 17ft, and 20ft alongside quay. Vessels 16 to 17ft can ascend river as far as inner harb. A patent slip, 715ft long, for vessels up to 1,200 tons. **Charges.** Port charges on a vessel of 247 tons £10. **Pilotage.** On a vessel of 247 reg. tons, ballast in and cargo out £3 12s 4d. From Bugt in Muhlgraben 9/9. **Towage.** On a vessel of 247 reg. tons, ballast to and cargo out:—From Bolderaa to Bugt £1 12s 6d; Bugt to Muhlgraben £2 8s 9d; Muhlgraben to sea £4 11s.

RIO DE JANEIRO, Brazil. (Atlantic.) Lat. 22° 54' 42" S; long. 43° 9' W. **Pop.** 380,000. **Tr.**—I. Cotton manufactures, flour, wine, hardware, salt, fish, butter, coals, cordage, copper, iron, lead, leather, paint, tea, wax, vermicelli, &c.; E. Coffee, sugar, hides, horns, rice, rum, rosewood, ipecacuanha, tobacco, tapioca, gold, and diamonds. **Accn.** One of the finest harbours in the world, but the dock accommodation is very limited. The least water in the harbour is 5½ fms., and there is deep water all the way to the anchorage off the town. To the northward of the anchorage the water continues deep, and the harbour is navigable for small vessels in every part of it. Two graving docks, one

300 by 70 by 28, and one of larger dimensions. **Charges.** On a vessel of 200 reg. tons £43. **Pilotage.** There are native pilots, and one is generally employed. No rates given. **Towage.** If required, good tow-boats are to be had, but there are no dangers in entering the port, there being from 5 to 6 fathoms of water all the way to the anchorage. The rates are very high, amounting to £90 for a vessel 1,500 tons, both ways.

RIO GRANDE DO SUL, Brazil. (Atlantic.) Lat. $32^{\circ} 07' S.$; long. $52^{\circ} 05' W.$ Pop. 16,000.

Tr.—I. Coal, salt, wine, spirits, flour, oil, lard, candles, and manufactured goods; E. Hides, dry and salted, horns, bone and bone-ash, dried beet, wool, hair, &c. **Accn.** The port stands 7 miles from the bar; the anchorage is fairly good, but vessels sometimes drag. No vessel drawing more than $11\frac{1}{2}$ ft. should attempt to cross the bar. Ships with that dft. are sometimes detained a fortnight. All foreign vessels, except those with general cargoes, and vessels of light dft. proceed on their arrival to the anchorage of San José do Norte, where salt-laden vessels discharge their cargoes. The anchorage there is good in from 5 to 7 fms. Coal-laden vessels are thence ordered to the town of Rio Grande, distant about 3 miles, to discharge, but the vessel must first be lightened to $9\frac{1}{2}$ ft. **Charges.** The port is a very expensive one. All charges on a vessel are calculated in Brazilian tons, or 28 per cent. more than English reg. tonnage. The total expenses are estimated at £1 per reg. ton. **Pilotage.** The pilotage rates are very heavy, and many masters prefer to take steam. **Towage.** There are two powerful steamtugs, but the charges are also very high—about $1/9$ per reg. ton. A vessel of 123 reg. tons paid £11 5s for being towed over the bar outwards, which occupied about 20 minutes.

ROCHEFORT, France. Lat. $45^{\circ} 56' N.$; long. $0^{\circ} 58' W.$ Pop. 29,000. **Accn.** Two floating docks and a dry dock. Vessels drawing 22 ft remain afloat in the port. 22 ft in the docks, and general depth in the river 18 ft to 20 ft LW. Above the dry dock is the old harb., with 23 ft of water. **Charges.** Vessels at this port are exempt from dock dues. Charges of all kinds for sailing vessels discharging a cargo and returning in ballast come to about $3/7$ reg. ton. **Pilotage.** According to distance of stations, as follows:—Sea to Isle of Aix $15/10$ to £4 3s $1\frac{1}{2}$ d; Isle of Aix to Port au Basque $9/6$ to £3 3s 4d; Port au Basque to Soubise $8/9$ to £2 11s 1d; Soubise to Vanguard, or Vanguard to Rochefort $7/11$ to £1 17s 6d, according to dft. **Towage.** 7d reg. ton from Aix roads to Rochefort or Charente, or $9\frac{1}{2}$ d for vessels coming up laden and down in ballast, or $11\frac{1}{2}$ d with cargoes both up and down. **Eng. Brokers.** V. Bachelar, E. Bachelar, C. Lafitte, G. Limousin.

ROCHELLE, France.—See La Rochelle.

ROCKHAMPTON, Queensland. Lat. $23^{\circ} 30' S.$; long. $151^{\circ} E.$ Pop. 8,500. **Tr.**—E. Wool, gold, copper, hides, tallow. **Accn.** Vessels of 13 ft can go to wharf. **Pilotage.** 5d per ton, minimum £2.

RONNE, Island of Bornholm. Lat. $55^{\circ} 5' N.$; long. $14^{\circ} 47' E.$ **Tr.**—I. Coal, timber and iron; E. White and grey clay, rough and hewn granite, grain, &c. **Accn.** 22 ft at entrance, 18 ft inside. Vessels can be repaired and repainted. Ronne is the capital of the island, the population of which is 38,000. **Charges.**

Vessel of 200 tons about £8 in, and £2 10s out (in ballast), £2 with cargo.

ROSARIO, Argentine Confederation. Lat. $32^{\circ} 57' S$; long. $60^{\circ} 36' W$. Pop. 52,000. Tr.—I. Lumber, coals, petroleum, manufactured goods, &c.; E. Wool, hides, bones, tallow, copper, &c. Accn. Vessels should not draw more than 16ft when laden, though a good many vessels drawing 17ft have from time to time loaded or discharged here. Charges. About 2½d reg. ton inclusive. Pilotage. Port pilot, for mooring into wharf, or going to sea 25/.

ROSETTA HARBOUR.—See Port Elliott, Victor, and Rosetta Harbours.

ROSTOCK, Germany. Lat. $54^{\circ} 4' N$; long. $12^{\circ} 15' E$. Pop. 40,000. Tr.—I. Coal, salt, iron, limestone, herrings and other provisions, timber, chalk, and colonial produce; E. Wheat, barley, oilcake, bones, peas, and rags. Accn. Vessels of 14ft dft. may ascend the river to this port. A large iron shipbuilding yard and patent slip. Pilotage. From sea to Warnemünde about 3/ foot, and *vice versa*; from Warnemünde to Rostock and *vice versa* as follows:—From 9/3 for vessels of 50 to 75 reg. tons, to about 19/ for vessels of 175 reg. tons, and larger. Towage. Between Rostock and Warnemünde:—From 36/ for vessels up to 100 reg. tons in ballast, and 42/ with cargo, to 80/ and 95/ for vessels of 381 to 400 tons; each 20 reg. tons larger size 5/ additional. From sea to Warnemünde, or *vice versa*:—From 30/ for vessels up to 150 reg. tons to 50/ for vessels of 221 to 240; each 20 reg. tons larger size 5/ additional.

ROTTERDAM, Holland.—Lat. $51^{\circ} 55' N$; long. $4^{\circ} 30' E$. Pop. 190,500. THW. 3h 45m; Sp. rise 7ft. Tr.—I. Grain, coals, ores, drugs, dye-stuffs, chemicals, East India produce, sugar, coffee, tobacco, petroleum, cotton, rice, rags, guano, African produce, &c.; E. Provisions, manufactured goods, oxen, sheep, pigs, horses, sugar, &c. Rotterdam is one of the most important ports on the Continent. Of the total navigation of the Netherlands, no less than three-fifths pass through this port. Since the construction of the New Waterway vessels of the largest size are able to reach Rotterdam quickly and safely, ships drawing 21ft. coming up at any time, and those drawing 24 to 26ft. at high water. Formerly it took two or three days to reach Rotterdam from the sea; now it is done in two hours. Improvements are being steadily carried out in the direction of increased facilities for shipping, with the result that the trade of the port has more than doubled within the past fifteen years. There are three floating dry docks 288ft, 298ft, and 157½ft respectively, and two slips for vessels up to 1,200 tons. On the port hand when going up the New Waterway to Rotterdam are Maasluis, Vlaardingen, an important fishing centre, and Schiedam, which has a large grain trade, and 400 distilleries. Charges. Harbour dues 1½d. per ton. No tonnage or light dues. Pilotage. Steamer of 1,000 tons. Sea pilotage:—

	Summer. April 1 to Sept. 30.	Winter. Oct. 1 to March 31.
	£ s. d.	£ s. d.
Inwards, 15ft	5 0 4	6 12 0
" 16ft	5 14 4	7 14 0
Outwards, 15ft	2 12 0	3 0 0
" 16ft	3 5 4	3 14 8

River pilotage, inwards and outwards :—	£ s. d.	£ s. d.
15ft	1 1 10	1 5 10
16ft	1 4 0	1 7 10
Sailing vessel of 1,000 tons. Sea pilotage :—		
Inwards, 17ft	9 4 0	11 17 0
" 20ft	17 13 4	23 0 0
Outwards, 17ft	6 0 0	6 13 4
" 20ft	12 16 0	13 12 0
River pilotage, inwards and outwards :—		
17ft	1 12 0	1 16 8
20ft	2 3 0	2 9 0
Sailing vessel of 1,000 tons in tow :—		
Inwards, 17ft	8 12 0	11 2 0
" 20ft	16 12 10	21 13 6
Outwards, 17ft	5 12 6	6 5 0
" 20ft	12 0 0	12 15 0
River pilotage, inwards and outwards :—		
17ft	1 10 0	1 13 0
20ft	2 0 0	2 5 0

ROUEN, France. (On the Seine.) Pop. About 130,000. THW. 2h 28m. Tr.—I. All kinds of grain, manganese, sulphur ore, lead, wool, oil, cotton, rice, coffee, logwood, coal, pig-iron, deal, timber, &c.; E. Gypsum, flour, wines, sugar, ochre, &c. Accn. Vessels drawing 20 to 21ft water can lie afloat at the new quays. At ST. vessels drawing 20 to 22ft can safely come up. Pontoon for vessels up to 1,000 tons. Charges. Expenses on a steamer inwards of 945 tons £174 3s 4d. Pilotage. On a steamer of 945 reg. tons from New Orleans with grain :—Inwards, sea to Villequier £18 11s 6d; Villequier to Rouen £2 18s 6d; in the harb., if required 10/3. Outwards :—From Rouen to Havre Roads £15 16s. Eng. Brokers. L. A. Aubin, H. Delamere, H. Deshayes, E. Deshayes, A. Faroult, H. Hauypois, E. Hulin, B. Roux, Captain Wade.

RUSOER, Norway. Lat. 58° 43' N; long. 9° 14' E. Tr.—E. Timber, ice, &c. Accn. Depth of water in harb. 18ft. Harb. well sheltered; can be entered at all times by the largest vessels. Good accommodation for repairing vessels. Charges. Harb. dues 7½d ton. Light dues 3d ton. Pilotage. In—winter 4/, summer 2/; Out—winter 2/, summer 1/6 per foot.

RUSSANOVA, Russia. Lat. 67° 00' N; long. 44° 00' E. Pop. 400. Accn. In channel at LT. 19ft of water abreast of quay, at HW. 38ft to 44ft, according to H. of T. Pilotage. From mouth of the river to loading place opposite saw-mills, a distance of nearly ten miles, per vessel inward £2; outward £3. Towage. Inwards 10d ton; outwards 1/.

SABLES D'OLONNE, France. Lat. 46° 29' N; long. 1° 47' W. Pop. 7,000. Accn. A tidal harb. At HW. on the bar 16ft, at the end of the port 1½ft. Charges. Sanitary dues 1d reg. ton. Ballast 7½d ton (alongside). Pilotage. From about 7/1½ for a vessel drawing 6ft 6in to £2 5s 1½d for a vessel drawing 13ft and above. 25% additional is charged from Oct. 1 to March 31. Eng. Brokers. T. Barré, A. F. Naud.

SAGUA LA GRANDE, W.I. Lat. 23° N; long. 80° W. Pop. 17,000. Tr.—I. From the United States provisions and cooperage stock, from Great Britain hardware, machinery, coal, rice, ale, salt, and firebricks; E. Sugar (muscovado) and molasses. Accn. 11½ft. HT. at the principal wharf. Vessels enter the harb. and load to 16ft. Pilotage. On a

vessel measuring 400 tons Spanish, laden with coal, in and out £7 10s; to and from wharf £2 10s. **Towage.** No steamtugs.

SAIGON, Cochín China. Lat. $10^{\circ} 51' N$; long. $106^{\circ} 45' E$. **Pop.** About 200,000. **Tr.**—I. Manchester goods, coal, wines, spirits, &c.; E. Rice, hides, pepper, cotton. **Accn.** The river is accessible to vessels of any dft. Floating dry dock 320 by 75 by 12ft. **Pilotage.** The tariff for merchant vessels is now from Cape St. James to Saigon:—Sail 10/, steamers 8/, sail in tow 8/, in ballast 6/, Messageries Maritimes 1/7 reg. ton, men-of-war about £1 17s 6d, shifting berth about £1 13s 4d, delay of pilot £1 0s 10d for each 3ft dft. Extra for detention of pilot. **Towage.** From bar to Saigon, vessels of 500 tons £26 0s 10d; 900, £34 7s 6d; 1,200, £44 15s 10d.

ST. AMARO.—See Santos.

ST. GEORGE, N.B. Lat. $45^{\circ} 6' 8'' N$; long. $66^{\circ} 54' 2'' W$. **Pop.** 800. **Tr.**—E. Deals, boards, and firewood. **Accn.** Harb. well sheltered, able to accommodate about twenty ships. Vessels moor with both anchors ahead, and two hawsers astern, made fast to wharves about 30 to 60 fms off, ships lying afloat at all times. **ST.** rise about 26ft, but there is not sufficient water for vessels loading alongside wharves without grounding. **Charges.** As per agreement. Expenses of a vessel loading about 6/ ton. **Pilotage.** Inwards from outside pilot station 10/5 foot, from inner station 6/3 foot; outwards is 2/1 less to outside station, but the same to inner station. **Towage.** A steamtug can be had if necessary.

ST. HELENA. Lat. $15^{\circ} 55' S$; long. $5^{\circ} 43' W$. **Pop.** 5,000. **Tr.**—I. Sheep, cattle, beer, wines, spirits, coffee, sugar, wheat, hay, rice, coal, ironmongery; E. Wool, hides, horns, and flax. **Accn.** Vessels calling only, anchor in from 10 to 40 fms; those discharging in 10 to 15 fms. St. Helena is a free port. No graving docks or repairing slips.

ST. HELENA SOUND, U.S. Lat. $32^{\circ} 24' 34'' N$; long. $80^{\circ} 24' 39'' W$. **Tr.**—E. Phosphate rock. **Accn.** Depth of water on the bar 23ft ST. and 19ft NT. Is safe only for vessels drawing 20ft at ST. and 17ft at NT. **Charges.** On a vessel of 589 reg. tons ballast in and cargo out £114 12s 4d. **Pilotage.** Bar pilotage 12/8½ foot, in and out up to 13ft, above that it appears to be increased, as a vessel drawing 13ft in and 17ft out paid altogether £31 16s 5½d. Mooring £2 2s 3½d each time. River pilotage 3/1½ foot. From Bar Buoy 2 to Port Royal or Beaufort half rates. Other pilotage varies according to dft. of water and distance, from £2 2s 3½d to £45 11s.

ST. JAGO, W.I. Lat. $19^{\circ} 57' 42'' N$; long. $75^{\circ} 54' 20'' W$. **Pop.** 30,000. **Tr.**—I. Flour, corn, rice, jerked beef, cod-fish, oil, and all kinds of American provisions, coals, lumber, ice, dry goods, ironware, and all sorts of manufactured merchandise; E. Sugar, rum, molasses, coffee, cocoa, tobacco, copper-ore, wax, cotton, honey, fustic, and mahogany. **Accn.** Entrance very narrow. Area of harb. 6 miles long by 2½ miles broad; sufficient water for the largest ship, but vessels drawing more than 15ft cannot come alongside the wharf. **Pilotage.** On a British vessel entering and leaving with cargo, in and out, varies from £2 3s 9d to £4 6s 5½d. **Towage.** There is no regular steamtug, but there are steamers which undertake to tow vessels in and out at from £17 14s 2d to £21 5s each.

ST. JOHN'S, Antigua. Lat. $18^{\circ} 22' N$; long. $64^{\circ} 42' W$. **Pop.** 16,000. **Tr.**—I. Ale, brandy, beef, bread, bricks, butter, candles, cheese, coal, codfish, cocoa, coffee, corn, cornmeal, crackers, flour, gin, hams, hay, herrings, horses, hoops, lard, lumber, mackerel, manure, matches, mules, naval stores, oil, oatmeal, oats, onions, peas, pork, porter, potatoes, rice, salmon, salt, soap, shingles, slates, tobacco, and all manufactured goods; E. Sugar, rum, molasses, and pine apples. **Accn.** Vessels of 12ft dft. cannot come within three-quarters of a mile of the wharves, and those drawing over 14ft are obliged to lie in the roads about $1\frac{1}{2}$ miles from the town. **Charges.** Port charges, harb. master's fees from 6/ for vessels under 80 tons to £1 12s for vessels over 300 tons. Rates, over 60 tons, each time $1/8$ per ton. Light dues 9d per ton, landing or taking cargo, export duty; hospital dues; lighterage; ballast, &c. **Pilotage.** Inwards, under 6ft £1; 8ft £1 4s; 9ft £1 10s; 10ft £1 16s; and every foot beyond 6s. foot. Outwards three-fourths inward rates.

ST. JOHN'S, N.B. Lat. $45^{\circ} 14' 3'' N$; long. $66^{\circ} 3' 5'' W$. **Pop.** 45,000. **Tr.**—I. British manufactures and colonial produce; E. Timber, fish, furs, and lime. **Accn.** Harb. safe and always accessible. There is 18ft of water on bar at LW.; inside anchorage off city is from 7 to 20 fms.; alongside wharves 21 to 30ft. Tide rises NT. 18ft, ST. 28ft. **Charges.** Charges and dues on a vessel of 450 tons, ballast in and cargo of deals out, £73. **Pilotage.** On vessel of 450 tons, ballast in and cargo of deals out:—In 8ft from Seal Island outside district, £3 15s.; shifting $13\frac{1}{2}$ ft out to Partridge Islands, 16/8 and £3 10s. 10d; down the bay (not compulsory), 1d. foot extra. **Towage.** Vessel of 450 tons, ballast in and cargo of deals out, from sea (if needed) £5 4s 2d; shifting £2 10s; to sea £7 5s 10d.

ST. JOHN'S, Newfoundland. Lat. $47^{\circ} 34' 2'' N$; long. $52^{\circ} 40' 50'' W$. **Pop.** about 29,000. **Tr.**—E. Fish, oil, sealskins, copper ore, &c. **Accn.** The port has sufficient water for vessels of 30ft dft.; Sp. rise 3ft 9in. The harb. is easy of access, and once inside is perfectly safe. There is a graving dock 500ft long, and a floating dock capable of receiving a vessel of 250 tons. **Charges.** Light and steam fog whistle dues 1-12th of a 1d ton; this charge applies to all vessels from the U.K. Wharfage $8/4$ day, $2\frac{1}{2}$ d ton. Labour $2/6$ to $4/2$. **Pilotage.** From £1 5s. on vessels under 80 tons, N.M., to £6 5s. on vessels of 700 to 800 tons, over that size $8/4$ per 100 tons. Max. pilotage £10. Steamers of less than 150 horse power pay pilotage on net tonnage, above that power 5d. horse power. **Towage.** In and out of Saint John's Harb., from half a mile outside the heads to the consignee's wharf, or from the consignee's wharf to half a mile outside the heads, from £1 10s for 50 tons to £16 9s for 900 to 1,000. Vessels requiring the steamers to go beyond the above limits pay the above rates additional as far as Cape Spear, and any vessel requiring towage beyond the Cape to the south, or an equal distance to the northward, is charged by special agreement. The above rates apply only to ordinary circumstances. Vessels in distress or otherwise disabled have to make special contracts for assistance. Vessels employing either of the steamers inwards will be taken outwards on their next voyage at two-thirds of above rates. Vessels using the steamer's hawser pay 10 per cent. of the towage rates for the same. In addition to above rates one-

third additional will be charged during winter months—commencing on December 10 and terminating on April 10 each year.

ST. MALO, France. Lat. $48^{\circ} 40' N$; long. $2^{\circ} 5' E$. Pop. of St. Malo and St. Servan 24,000. Tr.—I. Colonial produce, spices, flax, hemp; E. Corn, fruit, wine brandy, salt, linen, cider, butter, honey, salt provisions. Accn. A tidal harb. and floating basin of 38 acres with depth of water on sill NT. 13 to 15ft, OST. 25 to 28ft., great ST. 30 to 32ft; length of dock quays 1,450 yds. Shipbuilding is carried on. Extensive quays, built of granite, border the east and the south sides of the town of St. Malo. Charges. Navigation and sanitary dues same as at all other French ports. Labour $\frac{3}{4}$ per day of 12 hours. Ballast 1/1 ton. Dock gatemmen are paid 8 centimes per ton. Consignees find labourers for discharging cargo. Pilotage. 1½d to 2½d ton. Towage. 2½d ton, but generally by agreement. Eng. Brokers. A. Delestre, Picard, C. Thomazeau.

ST. MARY'S, U.S. Lat. $30^{\circ} 40' N$; long. $81^{\circ} 28' W$. Pop. 800. Tr.—I. General merchandise; E. Lumber. Accn. Depth of water 19 to 20ft close to the town. Vessels drawing 16½ft can safely cross the bar at HWST. Pilotage. On a vessel of 392 reg. tons, ballast in and cargo out, in 10½ft, £7 7s 10½d; out 15ft, £12 18s. Towage. On a vessel of 392 reg. tons, ballast in and cargo out, out £10 11s 5½d.

ST. NAZAIRE, France. Lat. $46^{\circ} 17' 18'' N$; long. $2^{\circ} 12' W$. Pop. 24,000. Tr.—I. Sugar, rice, coffee, logwood, timber, guano, coal, pitch; E. Wine, brandy, sardines, eggs, butter, dried fruits, pitwood, and Paris goods. Accn. Two floating docks, three graving docks, and two shipbuilding yards. Harb. capable of admitting vessels of the largest tonnage. The roadstead abreast the town is safe, and has 4 to 7 fms at L.W. Charges. Quay dues, ports in Europe 4½d ton, out of Europe 9½d ton. Sanitary dues 1d and 1½d respectively. Ballast 1/2½ ton for sand, stone 2/4½. Charges for a vessel of 580 tons about £103. Pilotage. The limits are divided into distances:—From Belle Ile to North of the Four light, La Banche, or Le Pillier, 4 distances; from North of the Four light, La Banche, or Le Pillier, to Les Charpentiers, 2 distances; from Les Charpentiers to Bonne Anse, 1 distance; from Bonne Anse to St. Nazaire Roads, 1 distance. The extreme limit of the Saint Nazaire pilotage is 1 distance, or 9 miles beyond Belle. Vessels, however, are obliged by law to receive a pilot from the first boat belonging to the station they may fall in with, no matter how far she may be from the port; but no extra pilotage can be claimed for any distance outside of the limits. Tariff, inwards, from 6/2 to £1 16s per distance; outwards, from 5/6 to £1 per distance, according to reg. ton. Vessels of more than 800 tons pay, in addition to the foregoing tariff, 10½d for every 10 reg. tons additional for the 8 distances inwards, and 10½d per 10 tons additional outwards. Steamers pay half pilotage. Towage. From the dock to the roads, vessels from 150 reg. tons to 200, £2; from 201 to 300, £2 8s; from 301 to 400, £2 16s; from 401 to 500, £3 4s; for every reg. ton over 500, 2½d. St. Nazaire road to La Banche, Les Charpentiers, or Le Pillier, and *vice versa*, 150 to 200 tons £8 18s, 201 to 250, £9 18s, 251 to 300, £10 15s 2d, 301 to 350, £11 17s 6d, for every reg. ton over 350, 7d. From St. Nazaire to Paimbœuf or *vice versa* 5d, ditto Nantes ditto 1½d.

Paimbœuf ditto 1/, Pelerin ditto, 2d ton of cargo. **Eng. Brokers.** Creston, Bourdonnay du Clezio, Quirouard.

ST. PETERSBURG, Gulf of Finland, Russia. Lat. 59° 56' 29" N; long. 30° 13' 22" E. **Pop.**

About 929,000. **Tr.**—I. Sugar, coffee, madder, indigo, corn, meal, dyewoods, cotton, wool, cotton stuffs, and yarns, machinery and millwork, woollen fabrics and woollen yarn, linen and linen yarn, coals, salt, iron, lead, shot, hardware, wire, spices, fruits, tobacco, &c.; E. Tallow, hemp, flax, grain, linseed, timber, copper, hides, potash, bristles, hemp seed, oil, furs, leather, fox, hare and squirrel skins, canvas and coarse linen, cordage, caviare, wax, isinglass, quilts, tar, &c. **Accn.** The channel of the new ship canal is deep enough for vessels drawing 18 to 20ft. **Charges.** On a vessel of 152 reg. tons about £22 10s. **Pilotage.** To St. Petersburg Bridge 10d foot; past the bridge 6/6. On a vessel of 152 reg. tons, in and out 1/2 foot, £2 5s. 6d. **Towage.** St. Petersburg Bridge to Customhouse £1 19s to £2 8s 9d; St. Petersburg to Cronstadt £4 17s 6d to £8 2s 6d.

ST. PIERRE ROAD, Martinique. Lat. 14° 44' 3" N; long. 61° 10' 45" W. **Pop.** 31,000.

Tr.—I. Salted meat, butter, and fish; E. Sugar, rum, cassia, skins. **Accn.** Anchorage 2½ to 7 fms. Dry dock at Fort de France 400ft long, capable of receiving vessels of 28ft dft. **Charges.** Light dues about 2/6. **Pilotage.** Vessels under 150 tons 9/6½; over 351 tons 23/6. **Eng. Broker.** S. Dupouy.

ST. SERVAN, France. **Pop.** given with St. Malo. **Accn.**

A tidal harb. and floating dock of about the same dimensions as at St. Malo, also a harb. called Port Solidor, formerly a naval station, and but little used for commercial purposes. **Charges.** Port charges and other expenses the same as St. Malo. **Pilotage.** Four recognised distances inwards:—1st, ½d reg. ton; 2nd, 1½d reg. ton; 3rd, 2d reg. ton; 4th, 2½d reg. ton. Only one rate of 2d ton outwards. On vessel of 80 reg. tons, cargo in and out, drawing 10ft, in and out £1 8s. **Towage.** As per agreement, from 1½d to 2½d ton, not compulsory. On vessel of 80 reg. tons 10ft dft., in and out £2. **Eng. Brokers.** Léger, E. Rosse.

ST. STEPHEN, N.B. **Pop.** 7,000. **Tr.**—I. Iron, salt, provisions, breadstuffs, sugar, molasses, tea tobacco, dry goods, &c.; E. deals, boards, timber, laths, farm produce, &c. **Accn.** Vessels of 600 tons and under load alongside wharves. Sp. rise 26ft. **Charges.** Stevedore 3/ per standard. Wharfage a nominal sum. Provisions abundant and cheap. **Pilotage.** From 4/2 to 9/4½ foot in and out, according to dft. **Towage.** From the Ledge 3½d ton loaded and 2½d light.

ST. THOMAS'S HARBOUR, St. Thomas, W.I. Lat. 18° 19' N; long. 64° 55' W.

Pop. 12,000. **Tr.**—I. Coal, lumber, provisions, petroleum, dry goods, spirits, &c.; E. Sugar, rum, bay water, &c. **Accn.** Vessels of largest size can lie alongside coal wharves of town. St. Thomas's Harb. is near middle of south shore of island. **Charges.** Light dues ½d ton. Is almost a free port. **Pilotage.** To the harb.:—From 25/ day, and £1 17s 6d night, for vessels of from 10 to 12ft dft., to £5 day and £7 10s night for vessels of from 24ft to 26ft dft. From the harb.:—From 16/8 day and 25/ night for vessels of from 10 to 12ft dft., to £3 6s 8d day and £5 night for vessels of

from 24ft to 26ft dft. Steamers up to 12ft to and from harb. £1 13s 4d day, and £2 10s 10d night; steamers 12ft to 16ft to and from harb. £2 1s 8d day, and £3 6s 8d night; steamers 16ft to 20ft to and from harb. £3 6s 8d day, and £5 night; steamers 20ft to 24ft to and from harb. £5 day, and £6 13s 4d night; steamers 24ft to and from harb. £6 13s 4d day, and £8 6s 8d night. Steamers running regularly half rates. **Towage.** On barque of 359 reg. tons, to sea £2 10s 10d.

ST. VALERY-EN-CAUX, France. Lat. 49° 52' N; long. 0° 33' W. **THW.** f. and c. 12h 58m.

D. HWST. 26ft; **HSST** 13ft. **Eng. Brokers.** A. Houdant, H. Vue.

ST. VALERY-SUR-SOMME, France. Lat. 50° 11' N; long. 2° 52' W. **THW.** f.

and c. 1h 14m. **D. HWST.** 33ft; **HWNT.** 24ft. **Maître de Port,** De Saint-Julien.

SALERNO, Italy. Lat. 40° 40' N; long. 14° 45' 20" E. **Pop.**

About 32,000. **Tr.**—I. Coal, cotton and petroleum; E. Oil, wine, and fruit. **Accn.** The port can accommodate vessels of from 16 to 24ft dft., and has been frequented by vessels drawing up to 24ft. The harb. is formed by a mole from land running N. and S., and a wing-mole at right angles. **Pilotage.** On vessel of 864 net tons reg. with 1,411 tons of coal inwards and leaving in ballast, in and out, £3 11s 7d.

SALONICA, Turkey. Lat. 40° 37' 28" N; long. 22° 58' 0" E. **Pop.** 100,000. **Tr.**—I. Liverpool and

London cottons, yarns, worsted, prints, shirtings, linen thread, Hessians, silks, elastic, oilcloth, carpets, copperas, soda ash, alum, sal-ammoniac, paint, linseed and cotton oil, rum, copper, beer, tin, hardware, earthenware, tinware, indigo, starch, rice, coffee, sheet hooks and bar iron, tin plates, machinery, from Cardiff coals and iron; principal E. Grain, cotton, wool, tobacco, beeswax, silk, linseed, opium, poppy seed, skins, bones, and rags. **Accn.** There is safe anchorage in 5 to 7 fms of water about two cable lengths from the sea. **Charges.** Total disbursements of a steamer one day in port, discharging 200 tons of general cargo £16 to £20. **Pilotage.** No regular pilots.

SAN DIEGO, U.S. Lat. 32° 41' 58" N; long. 117° 13' 22" W.

Pop. 10,000. **Tr.**—E. Grain, wool, hides, and honey. **Accn.** A depth of 22ft can be carried over the bar at mean L.W. There is a wharf with 23ft water at the end. **Charges.** No harb. or tonnage dues other than collected by U.S. Government. **Pilotage.** In or out £1 1s 1½d foot for vessels of 500 tons or less, 2½d ton additional for every ton in excess of 500. **Towage.** From £13 14s 10½d to £42 5s 10d in and out, or half for towing out.

SAN DOMINGO HARBOUR, Hayti. Lat. 18° 27' N; long. 69° 50' W. **Pop.**

About 16,000. **Tr.**—E. Mahogany, lignum vitæ, sugar, and beeswax. **Accn.** The maximum dft. of vessels loading inside is 11ft. **Pilotage.** From Barahona to San Domingo 8/4 day. On a vessel of 182 reg. tons at 3d ton £2 5s 1d.

SAN FRANCISCO, U.S. Lat. 37° 48' N; long. 122° 24' W.

Pop. 280,000. **Tr.**—I. Coal, sugar, rice, and manufactured goods; E. Gold, silver, copper, wool, wheat, flour, hides, quicksilver, barley, oats, hay, beans, potatoes, onions, tallow, wine, canned fish, fruit, and vegetables. **Accn.** Vessels of

the largest size can safely enter, as the least depth of water on the bar is $4\frac{1}{2}$ fms. A graving dock 416 by 90 by 24ft, three dry docks 210 by 84 by 20ft, 150 by 50 by 12ft, and 430 by 65 by 20ft, and a patent slip railway for vessels up to 800 tons. **Charges.** Tonnage dues 3d ton. Medical assistance in port, any length of time, £6 to £8. **Pilotage.** Under 500 tons 5 dols. per foot dft.; over 500 tons 5 dols. per foot and 4 cents per reg. ton. **Towage.** According to distance and tonnage, from £3 3s 5½d for 600 tons to £38 1s 3d for 2,500 tons.

SAN JUAN, W.I. Lat. $18^{\circ} 22' N$; long. $60^{\circ} 7' 15'' W$. **Pop.** 25,000. **Tr.**—I. Salt fish and meat, timber, butter, and machinery; E. Sugar, molasses, rum, and coffee. **Accn.** 38ft at the entrance, and 24ft alongside the coal wharf. **Charges.** On a vessel of 377 reg. tons about £10. **Pilotage.** On a barque 377 reg. tons, pilotage and weighing anchor £4 15s 10d.

SAN SEBASTIAN, Spain. Lat. $43^{\circ} 19' 30'' N$; long. $2^{\circ} 0' 6'' W$. **Pop.** 20,000. **Tr.**—E. Iron, wool, &c. **Accn.** San Sebastian has a dock to contain 32 vessels of 200 tons each. At the entrance of the harb. and dock during ST. and NT. 18 and 11ft respectively. A vessel drawing 12ft can nearly always enter both harb. and dock. **Charges.** Duty 6d ton on all merchandise imported. **Pilotage.** Compulsory for entrance but not for departure for all vessels above 50 tons. Vessels of 50 to 100 tons £1 5s; 100 to 200 tons £1 11s 3d; above 200 £1 17s 6d.

SANTA CRUZ, Teneriffe. Lat. $28^{\circ} 28' 30'' N$; long. $16^{\circ} 15' 09'' W$. **Pop.** 20,000. **Tr.**—I. Hardware, earthenware, cotton and woollen goods, coals, stores, leather, and dry goods generally; E. Wine, cochineal, tobacco, paving stones, provisions, fruit, &c. **Accn.** There is good anchorage where the largest vessels can safely lie close to the shore. Harbour works are making considerable progress. **Charges.** This is a free port. Supplies are cheap, and excellent fresh water can be obtained. **Pilotage (NP.)** By day, 14/1; by night, 28/2.

SANTANDER, Spain. Lat. $43^{\circ} 27' 52'' N$; long. $3^{\circ} 47' 7'' W$. **Pop.** About 40,000. **Tr.**—I. Sugar, textile fabrics, salted codfish, pitch, &c.; E. Iron and copper ore, quicksilver, wheat, flour, wine, and cobalt. **Accn.** The largest vessels can enter the port as far as the anchorage opposite the town. **Charges.** On a ship of 500 tons reg., with cargo in and out, about £15. **Pilotage.** All vessels above 50 tons must take a pilot. On a brigantine of 108 tons reg., cargo of pitch in and ore out, in £1 11s 3d, out £1 11s 3d, gratuity to pilot 4/2. **Towage.** Towages in harb. of vessel of 500 tons about 40/.

SANTOS, Brazil. Lat. $24^{\circ} 30' S$; long. $46^{\circ} 15' 30'' W$. **Pop.** About 11,000. **Tr.**—I. Flour, manufactured goods and wares, lumber, petroleum, machinery, &c.; E. Coffee, sugar, rum, tobacco, rice, cotton, hides, &c. **Accn.** The harb. is formed on the E. by the island of St. Amaro, and on the W. by the island of Eugua Guaçu. The bay has 4 to 10 fms water. On the E. side is the principal entrance to the harb. where vessels may lie in 30ft of water. **Charges.** On a vessel 200 tons £42 3s. Discharging at Custom-house free. **Pilotage.** From 26/ to 32/ vessel.

SARAWAK, Borneo. Lat. $1^{\circ} 02' N$; long. $110^{\circ} 18' E$. **Pop.** 20,000. **Tr.**—I. Cloth, brassware, salt, opium, tobacco, crockery-ware, rice, provisions, wines, beer, spirits, tea, ironware; E. Rice, timber, edible birds' nests, beeswax, pepper,

canes, camphor, fish, sago, flour, gutta percha, raw and pearl sago, paint, antimony, indiarubber. **Accn.** Deep water alongside wharf for vessels of 1,000 tons; and at Kuching there are two wharves. Lowest depth of water in the navigable channel $2\frac{1}{2}$ fms. Sp. rise 18ft., and N. rise 10ft. **Charges.** Buoy and light dues about $\frac{1}{4}$ ton. **Pilotage.** $8\frac{1}{4}$ foot. **Towage.** As per agreement.

SARPSBORG, Norway. **Tr.**—E. timber, deals, ice, battens.

Accn. Sarpsborg is about 6 miles above Frederikstadt, and vessels drawing 20ft can ascend as far as town and lie close alongside quay. **Charges.** On vessel of 320 tons about £36. **Pilotage.** On a vessel of 320 tons, in and out £5 8s 4d. **Towage.** On a vessel of 320 tons, in 6s.

SATILLA RIVER, U.S. Lat. $30^{\circ} 54' N$; long. $81^{\circ} 32' W$.

Tr.—E. Deals and boards are principally shipped to the Plate. **Accn.** There are always 18ft of water on the bar. Vessels drawing more than $14\frac{1}{2}$ ft complete loading at a land-locked harb. just below the flood shoals. **Pilotage.** A barque of 430 reg. tons entering with ballast and leaving with cargo, $14\frac{1}{2}$ ft dft., in and out £25 15s $11\frac{1}{2}$ d. **Towage.** A barque of 430 reg. tons, entering with ballast and leaving with cargo, from the Mills to Jekyl Island, about 16 miles, and below the shoals £11 13s $7\frac{1}{2}$ d.

SAVANA LA MAR, Jamaica. **Tr.**—E. Sugar, rum, coffee, hides; I. Manufactured goods, beer, spirits, provisions. **Accn.** Depth of 22ft inside reef. **Charges.** Light dues 3d. per ton, on sailing vessels only. Harbour dues: under 12ft 10s; over 12ft 20s. **Pilotage.** Inwards 30/6; out 25/, for 7ft, each additional foot 4/ in, 3/ out. **Towage.** A steam launch available.

SAVANNAH, U.S. Lat. $32^{\circ} 1' 21'' N$; long. $80^{\circ} 50' 33'' W$.

Pop. About 35,000. **Tr.**—I. Pig-iron, &c.; E. Rice, cotton, and lumber. **Accn.** On Tybee bar 19ft at LW. Sp. rise 17ft. At ST. vessels of 18 to 19ft dft. can go up to town. Graving dock 340 by 80 ft, and slip railway for vessels of 1,200 tons. **Charges.** On a barque of 606 tons, cargo in and out £83 8s 8d. **Pilotage.** According to dft. and distance. Minimum 6ft, U.S. vessels, bar pilotage, and to Cockspur £2 10s $11\frac{1}{2}$ d, foreign ditto £3 16s 9d; U.S. vessels from Cockspur to Savannah £1 11s $1\frac{1}{2}$ d, foreign ditto £2 6s $6\frac{1}{2}$ d; maximum 20ft, U.S. vessels bar pilotage and to Cockspur £17 11s $11\frac{1}{2}$ d, foreign ditto £24 16s $8\frac{1}{2}$ d, U.S. vessels from Cockspur to Savannah £9 18s $8\frac{1}{2}$ d, foreign ditto £14 17s $11\frac{1}{2}$ d. Detention of pilot per day 18/3. All vessels bound up or down river and detained one tide to alter the trim of the vessel pay the pilot a sum of £1 11s $8\frac{1}{2}$ d, but no detention for that day. **Towage.** Vessels with cargo over 300 reg. tons, per ton City to Tybee, or direct to sea $7\frac{1}{2}$ d; sea to City $7\frac{1}{2}$ d; Venus Point to City 5d; Obstructions to City $3\frac{1}{2}$ d; Venus Point to Tybee or direct to sea 5d; if anchored at Tybee £10 11s $5\frac{1}{2}$ d extra to sea. Vessels in ballast over 300 reg. tons, sea buoy or Tybee or direct to City 6d; Venus Point to City 4d; Obstructions to City $2\frac{1}{2}$ d; Long Island to City 5d; Tybee to sea £10 11s $5\frac{1}{2}$ d extra. Vessels under 300 reg. tons and over 200 each, City to Tybee, with cargo £8 9s 2d; to sea £2 2s $3\frac{1}{2}$ d; City to Tybee, in ballast £7 8s $0\frac{1}{2}$ d; Long Island to City, with cargo £7 8s $0\frac{1}{2}$ d; or to Obstructions £3 3s $5\frac{1}{2}$ d; or to Venus Point £6 6s $10\frac{1}{2}$ d. When a boat goes to Venus Point, or to any intermediate point, to tow a vessel out or in, and vessel does not go, £8 9s 2d. When a boat goes below Venus Point, or to Tybee,

and vessel does not go, £10 11s 5½d. When a vessel under weigh stops by getting aground or from any other cause £8 9s 2d for each tide per boat above Venus Point; below £10 11s 5½d. For boats getting up steam by orders and vessel refusing to go £2 2s 3½d.

SAVONA, Italy. Lat. 44° 18' 42" N; long. 8° 9' 29" E. Pop. 29,000. Tr.—I. Coke, coal, old iron, pig-iron, grain, colonial goods, wine, clay, &c.; E. Staves, dry chestnuts, wooden hoops, oil, earthenware, &c. Depth of water 22 to 25ft inside mole; vessels drawing 22ft lie alongside quays. Charges. On vessel of 1,000 reg. tons coal in and ballast out, about £110. Anchorage dues increased ½d since 1886. Stevedore's charges 7d per ton of coal. Pilotage. For every vessel employing a pilot 11/10½, besides ½d for each reg. ton of the vessel. Towage. By agreement.

SETUBAL, Portugal. Lat. 38° 31' N; long. 8° 53' W. Pop. About 25,000. Tr.—E. Oranges, lemons, grapes, corn, wine, salt, cork wood, and spirits; woven goods are not allowed to be imported into this port. Large quantities of sardines are now shipped from this port. Accn. In channel off bar at LW. there is 14ft at ST., NT. 15ft; at HW. 23ft to 28ft; tides rise from 8ft to 10ft. Pilotage. 1½d ton measurement up to 150 tons, every ton above that ½d; maximum £1 11s 3d, and minimum 8/4. Pilot receives for his services on board outside the harb. or inside the river Sado 4/2 the first day, and 3/4 day after.

SEVILLE, Spain. Lat. 37° 10' N; long. 6° 10' W. Pop. 134,000. Tr.—I. Hides, hemp, flax, iron, manufactured goods, and colonial produce; E. Manzanilla and Amon-tillado wines, lemons, oranges, wool, &c. Accn. The river as far as Seville is navigable for vessels drawing 13½ft to 15ft, and ST. 15ft. Pilotage. In the Guadalquivir river from Bonanza to Seville, payable on ship's gross tonnage:—From £1 17s 6d for steamers and vessels under 60 tons towed and £2 1s 8d for vessels under 60 tons sailing, to £3 15s for steamers and vessels above 800 tons towed and £4 11s 8d for vessels above 800 tons sailing. Mooring tariff payable on ship's gross tonnage, from 2/6 to 7/6. Towage. As per agreement, from £8 6s 8d to £10 8s 4d, not drawing more than 14½ft; above, from £12 10s to £14 11s 8d from San Lucar to Seville, and *vice versa*.

SHANGHAI, China. Lat. 31° 15' N; long. 121° 28' E. Pop. about 400,000. Tr.—I. Cotton and woollen manufactures, and sugar; E. Tea, silk, cotton, gold, &c. Accn. Vessels of 24ft dft. can ascend as far as Shanghai at ST. There are five dry docks, 325ft, 330ft, 345ft, 380ft, and 450ft respectively. Charges. On a vessel of 740 reg. tons £5 4s 9d. Pilotage. Gutzlaff to Shanghai, sail. ves. about 25/, s.s. 20/. Lightship to Shanghai, sail. ves. about 22/6, s.s. 20/. Wusung to Shanghai, sail. ves. about 10/, s.s. 7/6. Sea to Wusung, sail. ves. about 17/6, s.s. 15/. Same rates outward. Towage. On vessel of 1,199 reg. tons, coal in and ballast out, towing in and out, and from and to moorings £82 10s.

SHEDIAC, N.B. Lat. 46° 16' N; long. 66° 35' W. Pop. 1,000. Tr.—E. Lumber. Accn. Port, easy of access, is recognised as a harb. of refuge. Vessels can now load to 14ft or more at the wharf before moving out into the stream. Ships from 800 to 1,000 tons load inside to 18ft. Charges. Tonnage

and light dues 1d ton. Harb. master 16/8 to 20/10. Pilotage. In 6/3 foot, out 3/9 foot.

SHEET HARBOUR, N.S. Lat. 44° 47' 25" N; long. 62° 32' 43" W. Tr.—E. Lumber.

Accn. A perfectly safe and almost landlocked harb., and can receive vessels of any dft. **Charges.** Charges and dues on a barque of 600 tons £65 18s 9d. **Pilotage.** On a barque of 600 tons, in and out £6.

SIERRA LEONE, Africa. Lat. 8° 29' 57" N; long. 13° 14' 30" W. Tr.—I. Cotton goods, gunpowder, clothing, hardware, haberdashery, rum, and gin; E. Gold, ground nuts, copal, palm oil, palm nuts, ginger, hides, ivory, rice, tobacco, timber. **Accn.** Safe and commodious harb., with sufficient water for the largest vessels afloat. Ships of any size can lie in harb. **Charges.** Tonnage dues 1/, light dues 3d, harb. dues 2d reg. ton. A vessel of 230 tons d. w., drawing 11ft, cost £28 14s 9d. **Pilotage.** In 5/ foot, out 2/6 foot. **Towage.** By agreement.

SIERRA MORENA, W.I. Lat. 22° 58' N; long. 80° 30' W. Tr.—E. Molasses. **Accn.** Vessels of 11½ft dft. can safely enter.

SINGAPORE, Straits Settlements. Lat. 1° 17' N; long. 103° 51' E. Pop. 120,000. Tr.—E. Gambia, tin, sago, tapioca, white and black pepper, tortoiseshell, mother-of-pearl, gutta percha, nutmegs, mace, camphor, gum elastic, coffee, sapan wood, shellac, rattans. **Accn.** The new harb. possesses wharves and jetties. Vessels drawing 19ft to 24ft can discharge and load with ease and despatch alongside at all times. The new Albert Dock is 467ft long, 60ft wide at the entrance, and has a depth of 21ft. Four graving docks. **Charges.** Is a free port. No tonnage or harb. dues. **Pilotage.** Inwards :—From Cyrene Shoal to Patent Slip and Dock Co., per foot dft. 3/1½d; from Cyrene Shoal to any part of the new harb., or passing through new harb. to eastward 4/2; from eastward to Tanjong Pagar 3/1½; from any other part of new harb., or passing through new harb. as far as Cyrene Shoal, 4/2d. Outwards : From Tanjong Pagar to eastward 3/1½; from any other part of new harb., or passing through new harb. to eastward, 4/2; from Patent Slip and Dock Co. to westward as far as Cyrene Shoal 3/1½; from any other part of new harb., or passing through new harb. westward as far as Cyrene Shoal, 4/2. Between Cyrene Shoal and Sultan Shoal, to or from, half the above rates in addition, 3/1½; from one part to another of new harb. South Channel, Penang, 3/1½; passing through from South 4/2; ditto North 3/1½; vessels entering from the North are liable only to a charge for berthing of £1 os 10d; mooring and unmooring vessels when no pilotage is charged, each £1 os 10d.

SKUTSKAR, Sweden. Tr.—E. Wood goods. **Accn.** A safe and commodious harb. Vessels not drawing more than 24ft can load in harb. **Charges.** Port charges are reasonable. **Pilotage.** On a vessel of 222 tons reg. entering in ballast, leaving with a cargo of 107 standard deals, in £1 os 9d, out £1 10s 7½d. **Towage.** On a vessel of 222 reg. tons with a cargo of deals, to sea £2 2s 6d.

SLITO, Sweden. Tr.—I. Coal, imported chiefly for the use of steamers calling in; E. Timber and lime. **Accn.** One of the best harb. in the Baltic, with 20 to 30ft. The inner

harb. can accommodate a few small vessels close to the pier in 12 to 16ft of water. **Charges.** On a brig 171 reg. tons £21 10s. **Pilotage.** On a brig of 171 tons reg. loading part of cargo at Wisby and finishing loading at Slito—at Wisby, inwards and gratuity £1; at Slito, in and out £1 is 2½d.

SMYRNA, Turkey. Lat. 38° 25' 40" N; long. 27° 9' 10" E. **Tr.**—I. Manufactured goods, furs, grain, coals, iron, tin, cotton, coffee, copper, earthenware, &c.; E. Fruit, raw silk, valonia, madder, roots, liquorice, carpets, cotton, wool, sponges, opium, &c. **Accn.** The principal port in the Levant; vessels can lie alongside the quays in 24ft of water at end of railway pier, and 12ft alongside it. **Charges.** On a schooner of 140 tons £50 (cargo in and out). **Pilotage.** There are no regular pilots; they are generally engaged outside by masters to assist in navigating their vessels to the entrance of the gulf; the charge for this is about £1. **Towage.** 18/ each time.

SODERHAMN, Sweden. Lat. 61° 17' N; long. 17° 5' E. **Pop.** 4,000. **Tr.**—E. Iron and wood. **Accn.** Vessels can load 16ft 4in English. **Charges.** On vessel of 500 tons £32 9s. **Pilotage.** On a steamer of 500 tons reg. coming from a foreign port in ballast, cargo out to a foreign port, in, 10ft, 16/9½; out, 17ft, £1 10s 6½d; to Prestholm, 17ft, 17/2. On a sailing vessel 300 tons reg. from foreign port in ballast, cargo out to foreign port, in, 9 ft, 14/8; out, 17 ft, £1 10s 6½d. **Towage.** On a steamer of 500 reg. tons coming from a foreign port in ballast, cargo out to foreign port, to Prestholm £2 2s 6d.

SOURABAYA, Java. Lat. 7° 13' 8" S; long. 112° 46' E. **Pop.** 127,500. **Tr.**—I. Calicoes, canvas, glasswares, porcelain, paper, iron, petroleum, candles, &c.; E. Sugar, rice, coffee, hides, indigo, tobacco, pepper, &c. **Accn.** A basin capable of containing 20 vessels of from 100 to 800 tons. Has a dry dock 280ft long and a patent slip. One of the chief towns of Isle of Java. **Charges.** On ship of 803 tons, sugar cargo, about £35. **Pilotage.** (Not compulsory.) About £8 or £9.

SPALATO, Austria.—Lat. 43° 30' 11" N.; long. 16° 26' 10" E. **Pop.** about 20,000. Principal export, wine, which is carried to France by English steamers. **Accn.** The harbour is safe, and sheltered by a breakwater. The depth varies from 13 to 25ft. There is a rising trade here, owing to the new railway.

SPÉZZIA, Italy. Lat. 44° 4' 29" N; long. 9° 50' 30" E. **Pop.** About 35,000. **Tr.**—I. Coal, iron, timber, flour, and hides; E. Oil, manganese ore, pig-lead, silver, grain, wine, and sandstone for paving purposes. **Accn.** Depth of water 12ft at entrance of inner harb. There are two openings on land side, E. and W., latter 200 and former 400 yds wide. Vessels usually anchor off town, in 5½ fms. A breakwater has been built 2½ miles from town across gulf. **Charges.** Tonnage dues 5½d ton. Sanitary dues ¾d and sailing vessels 2½d ton.

SPRANGSVIKEN, Sweden. **Tr.**—E. Deals and tar. **Accn.** Fine harb., where vessels can load to 20ft. **Charges.** On vessel of 600 tons, ballast in and cargo out £65. **Pilotage.** On a vessel of 506 tons reg., ballast in and cargo out drawing 18½ft loaded, in £2 1s 3½d; out £2 13s 11½d. **Towage.** On a vessel of 506 reg. tons, ballast in and cargo out, drawing 18½ft loaded, from Hernösand to Sprangsviken £4 10s 3½d.

STAVANGER, Norway. Lat. $58^{\circ} 58' 15''$ N; long. 23° E. Pop. About 25,000. Tr.—I. Grain, salt, sugar, coffee, wines, spirits, &c.; E. Sheep, manure, herrings, anchovies, lobsters, &c. Accn. Harb. is good, always free from ice, and can receive the largest vessels; depth of water $5\frac{1}{2}$ fms close to quay. Two graving docks 300 by 45 by 11ft, and 205 by 40 by 15ft. Charges. Light and custom-house dues 9 $\frac{1}{2}$ d in or out. Brokerage according to agreement. Ballast 2 $\frac{1}{2}$ d.

STETTIN, Germany. Lat. $53^{\circ} 25'$ N; long. $14^{\circ} 34'$ E. Pop. 96,600. Tr.—I. Coal, iron, coke, petroleum, salt, herrings, dried fish, coffee, tea, pipe-clay, wine, olive oil, sulphur, pyrites, soda, agricultural machinery; E. Grain, flour, bran, potatoes, timber, staves, zinc, spirits, sugar, cement, fire-bricks, refined and raw rape oil, molasses, rags, bones, and bricks. Accn. Town quay and two extensive railway quays. Floating dry dock 210 by 47 by 15ft for vessels up to 1,500 tons. Charges. Very indefinite. Pilotage. From Swinemünde to Stettin. From 6/ for a vessel of 15 tons to 16/ for 105 tons, and 1/ additional for every 15 reg. tons additional. Pilotage out to and in from sea is included in the harb. dues. Towage. Loaded vessels from Swinemünde and Stettin 2 $\frac{1}{2}$ d; Stettin to Swinemünde, 1 $\frac{1}{2}$ d cubic metre; sea to Swinemünde 3d per 4 $\frac{1}{2}$ cubic metres, but generally according to agreement. From the black buoy into the harb. ships under 16 British reg. tons have to pay 9/. From Nov. 1 until March 1 the towage is raised according to the weather and other casual circumstances.

STOCKHOLM, Sweden. Lat. $59^{\circ} 20'$ N; long. $18^{\circ} 03'$ E. Pop. 131,000. Tr.—E. Timber and iron. Accn. Harb. has 5 to 16 fms. of water. Vessels of 24ft dft. can safely enter. Several hundred vessels can lie alongside quays. Three graving docks 255ft, 260ft and 350ft in length respectively, and three patent slips. Pilotage. According to distance, varies from 17/ for 38 miles to £7 4s 5d for 72 miles. For vessels clearing outward in ballast the above charges are reduced by one-half. An extra charge of 1/7 $\frac{1}{2}$ is made for attestation. The winter charges, dating from Sept. 1 to April 30 are increased by 25 per cent. from the sea to the first pilot station inside the buoys. Pilots' return fares about 12/9. Vessels bound to any place on the line of passage up to Stockholm must take pilots at Landsort. Towage. The rates vary (according to distance) from £2 5s 8 $\frac{1}{2}$ d for 66 tons to £24 14s for 880 tons. This scale is increased by 25% in October, and by 50% in November. If several vessels are towed together, a reduction is made of 25%.

STRALSUND, Germany. Lat. $54^{\circ} 18'$ N; long. $13^{\circ} 5'$ E. Pop. 27,000. Tr.—I. Iron, colonial produce, wood, coal, salt; E. Malt, timber, and corn. Accn. A safe and capacious harb., entrance narrow; it admits vessels of 13ft dft.; a pilot should be engaged. Charges. Expense of a vessel of 300 tons loading here £14 19s 8d.

STUBBEKIOBING, Denmark. Lat. $54^{\circ} 53'$ N; long. $12^{\circ} 3'$ E. Pop. 1,100. Tr.—E. Barley, corn, &c. Accn. The harb. has 12ft of water, and vessels of that dft. can lie afloat alongside a stone pier. Charges. On a vessel of 122 tons, 12ft dft. loaded £6. Port dues £5 10s. Pilotage. On vessel of 122 reg. tons; ballast in and cargo out, 12ft dft. loaded, in and out 10/.

SUAKIN, Red Sea. Lat. $19^{\circ} 7' N$; long. $37^{\circ} 20' E$. **Tr.**—I. Manchester goods, iron, hardware; E. Gum arabic, cotton, ivory. **Accn.** Harb. safe for largest vessels. **Charges.** Moderate.

SUEZ, Egypt. Lat. $29^{\circ} 58' N$; long. $32^{\circ} 10' 17'' E$. **Pop.** 8,000. **Tr.**—I. Coffee, indigo, wine, furniture; E. Goods in transit. **Accn.** Tides rise, ST 7ft; NT. 4 to 5ft. Dry dock 430ft long. **Charges.** Dock dues 18/ a day; light dues about $2\frac{1}{2}$ d per ton up to 800 tons, and about 1 $\frac{1}{2}$ d per ton additional. **Pilotage.** Inwards, outer roads to dry dock 54/; to either basin 35/; from one basin to another 18/. Same out (see Index, Suez Canal).

SULINA, Roumania. Lat. $45^{\circ} 9' 6'' N$; long. $29^{\circ} 41' 37'' E$. **Tr.**—I. Spirits, cordage, beer, ironware, sugar, fruit, &c.; E. Fish (fresh and dried), hides, wheat, cheese, caviare, maize, wool (raw), vegetables, barley, &c. **Accn.** The depth of water over the bar is always maintained at 20 $\frac{1}{2}$ ft. The depth of water in the port itself is above 20 $\frac{1}{2}$ ft, so that vessels drawing 20ft can enter and leave the harbour in ordinary times. **Charges.** From 92 centimes per ton for a vessel of 200 tons to 1fr. 64c. per ton on a vessel over 800 tons. **Pilotage.** Is compulsory at the entrance. For vessels ascending the river to Ibrail, or any port below Ibrail, pilotage is optional, but for descending the river every vessel must take a licensed pilot. Masters of vessels arrange with pilots the sum to be paid the latter for piloting their vessels up stream, and no claim for a higher rate of wage than 4/9 a day for the voyage, in addition to subsistence on board, ought to be admitted. The dues for piloting a vessel down stream are included in the port charges levied by the European Commission of the Danube. **Towage.** By agreement, from £2 to £10 according to size of vessel.

SUNDSVALL, Sweden. Lat. $62^{\circ} 21' N$; long. $17^{\circ} 20' E$. **Pop.** 6,000. **Tr.**—I. Colonial produce, salt, brandy, coal, coke, corn, wine, canvas, cordage, &c.; E. Timber, deals, battens, boards, ores, spars, iron, tar, &c. **Accn.** The largest ships can enter. **Pilotage.** To Sundsvall or any of the sub-ports, about 2/8 per foot in and out. Moving in harb. 5/3 $\frac{1}{2}$. **Towage.** As per agreement.

SVENDBORG, Denmark. Lat. $55^{\circ} 03' N$; long. $10^{\circ} 38' W$. **Pop.** About 6,000. **Accn.** Usually 14ft of water in the harb. Svendborg is situated on the S. coast of the island of Fyen. **Charges.** Harb. dues about 1 $\frac{1}{2}$ d per ton. Vessels in ballast pay no harb. dues. Custom-house charges 6d reg. ton. **Pilotage.** 6 $\frac{1}{2}$ d foot in and out.

SWAN RIVER, Western Australia, which includes Gage Road, Owen Anchorage, and Cockburn Sound. Lat. $32^{\circ} 3' 18'' S$; long. $115^{\circ} 45' 30'' E$. **Tr.**—E. Sandal wood, copper and lead ores, wool, pearl, oyster shells, timber, manna, gum, horses, cows, sheep. **Accn.** The river itself can only admit small craft of about 4ft dft.; Cockburn Sound is a spacious harb., and affords secure anchorage in 5 to 12 fms; vessels over 16ft dft. are not allowed in Owen anchorage; Gage Road is the nearest anchorage to the river; vessels anchor in 6 to 12 fms, about two or three miles from the main land. **Charges.** Harb. dues £2 5s to £7 4s for under 8ft or upwards of 18ft. Light and tonnage dues are chargeable with various exemptions. Vessels arriving in ballast and loading colonial timber free of all charges. Vessels putting in

for repairs or supplies only, pay light dues. Lighterage from 5/ to 7/ ton. **Pilotage.** Into or out of Gage Road or Owen Anchorage, by passing N. or S. of Rottneest Island and N. of the Stragglers £2 10s, with increasing rate to £11 for vessels drawing under 8ft to 23ft and upwards. Into or out of Gage Road (vessels over 16ft dft. are not now allowed in Owen Anchorage), Owen Anchorage, or Cockburn Sound, by any channel S. of the Stragglers, £3 10s to £8 9s for vessels drawing under 8ft to under 19ft.

SWATOW, China. Lat. $23^{\circ} 21' N$; long. $116^{\circ} 40' E$. Pop. 60,000. **Tr.**—I. Opium, piece goods, bean cake, peas, and beans, the last three items from Newchwang and Chefoo, cereals from the Yangtze ports and Bangkok; E. Sugar, paper, tea, tobacco, and sundry miscellaneous articles, including grass cloth, earthenware, fruit, and Chinese provisions. There is a large emigration to Bangkok and the Straits Settlements. **Accn.** Vessels of 13ft to 14ft dft. can enter at any time in fine weather. Tides rise 8ft. and 9ft. **Charges.** See Canton. **Pilotage.** 12/6 foot, not compulsory, but advisable.

SWINEMUNDE, Germany. Lat. $53^{\circ} 55' N$; long. $14^{\circ} 16' E$. Pop. About 8,000. **Accn.** The fairway is from 360 to 492ft wide. 23ft of water at the entrance of the harb. This is one of the best ports in the Baltic. **Charges.** With coals or in ballast $1\frac{1}{8}$ öre per reg. ton.; with general cargo $3\frac{1}{8}$ öre per reg. ton. Labourage 17m a keel of 7 Prussian lasts. **Pilotage.** See Stettin. **Towage.** See Stettin.

SYDNEY.—See Port Jackson.

SYRA, Greece. Lat. $32^{\circ} 03' N$; long. $15^{\circ} 15' E$. Pop. About 35,000. **Tr.**—I. Syra is the chief emporium of the trade in the Greek Archipelago; large quantities of colonial manufactured goods are imported chiefly from England, not only for sale to purchasers who frequent this market from all parts of Greece and Turkey, but also for retranshipment thereto; large quantities of grain and hides are also imported; E. The only produce grown in the island is fresh vegetables. Syra, however, serves as a medium for shipment to Europe of the well-known Naxos emery-stone and citrons; sponges from the islands of Sporades, Nauplia tobacco, Zea and Marathonisi valonia, and other produce from the mainland, leather manufactured at the local tanneries, and flour prepared at the local flour mills, form important items of export. **Accn.** The depth of water in the harb. varies from 3 to 7 fms. A slip for vessels up to 700 tons, and another in course of construction for vessels up to 2,000 tons. **Charges.** Since July 1/13, 1887, the port and light dues have been increased to 25c. for discharging only, and for loading and discharging 35c. per ton. Breakwater dues 10c. per ton. Health dues 2c. per ton. Vessels calling for provisions and coals, or from stress of weather, pay breakwater and health dues only, but if they remain longer than 48 hours are charged 15c. per ton. Ballast, about £10 per 100 tons.

SYRACUSE, Italy. Lat. $37^{\circ} 3' N$; long. $15^{\circ} 18' 24'' E$. Pop. 23,200. **Tr.**—E. Wine, grain, oranges, and lemons. **Accn.** Can admit vessels of any size, and is one of the finest harb. in the Mediterranean. **Pilotage.** Inwards:—from 11/10½ for vessels up to 50 reg. tons, to £2 5s 1d for vessels of 301 reg. tons and upwards. Outwards by agreement.

TACOMA, U.S. Lat. $47^{\circ} 30' N$; long. $122^{\circ} 30' W$. On the E. side of Puget Sound. Pop. 4,000. **Tr.**—I.

General merchandise, iron, and manufactured goods; E. Lumber, hops, grain, coal, &c. **Accn.** Safe harbour, completely protected by high lands from all winds, considerable anchorage ground and spacious wharves with nearly 30ft LW, and rise of tide 16ft. **Charges.** Discharging ballast 1/3 to 1/8 ton. Stevedoring charges and labour about the same as San Francisco. No dock charges. **Towage.** To sea, from £41 13s 4d for vessels of 400 to 500 tons; to £62 10s for vessels of 1,600 tons to 2,000 tons. To Race Rocks, from £31 5s to £52 1s 8d. To Dungeness, from £26 0s 10d to £46 17s 6d. To Port Townsend, from £20 16s 8d to £41 13s 4d respectively. **Hawsers'** rates for all vessels to sea £4 3s 4d; to Port Townsend £2 1s 8d.

TAGANROG, Russia. Lat. 47° 12' 48" N; long. 38° 29'

E. **Pop.** 50,000. **Tr.**—I. Dried fruits, oil, wine, coffee, tobacco, liquors, woollen goods, fresh fruits, nuts, cement, manufactured iron, and jute sacking; E. Wheat, rye, barley, linseed, rape seed, tallow, maize, oats, caviare, maccaroni, wool, butter, and oilcake. **Accn.** There is no regular port. Usual anchorage ground 18 to 20ft, and from 5 to 6ft at loading pier. **Pilotage.** A charge of about 11/ per ship is always made by the Custom-house at Kertch for pilotage through the Straits on every vessel proceeding into the Azof, whether a pilot is taken or not. £6 to £12 up and down (optional and matter of agreement).

TALCAHUANO.—See Concepcion Bay.

TALTAL, Chili. Lat. 25° 24' 55" S; long. 70° 35' 10" W.

Tr.—E. Nitrates and ores. **Accn.** Ships can moor within half a cable's length of the mole in 5 fms of water; sand bottom. The harb. is one of the best in Chili. **Pilotage.** On a barque of 399 reg. tons, at Caldera mooring and unmooring about £5.

TAMATAVE, Madagascar. Lat. 18° 10' S; long. 49° 32'

E. **Pop.** 8,000. **Tr.**—I. Cotton cloths, wearing apparel, hardware, provisions, beer and spirituous liquors, oil, chairs, &c.; E. Oxen, cows, swine, poultry, hides, rice, tobacco, specie, straw and basket wares, gum, wax in large quantities. **Accn.** Has a commodious harb. with safe anchorage during eight months of the year, from April to November. **Charges.** No tonnage, light, or other dues imposed.

TANGIERS, Morocco. Lat. 35° 47' N; long. 5° 50' W.

Pop. About 20,000. **Tr.**—I. Alum, brass and copper, cloth, candles, cochineal, coffee, cotton goods, deals, china earthenware, glass, hardware, indigo, iron, lead, paper, rice, silk, spices, steel, sugar, and tea; E. Beans, canary and cinnamon seeds, dates, eggs, fowls, goat skins, gums, hides, leeches, maize, olive oil, oranges, ostrich feathers, oxen, peas, sashes, slippers, wax, &c. The export of wheat and barley is prohibited. **Accn.** Anchorage about a mile from town. Has sufficient water for largest vessels. **Charges.** Anchorage, about 150 tons, about 16s; lighterage, lighter of 5 tons, 16s; sanitary fees, above 150 tons, 6s. There is also a fee of 1s 6d payable by way of gratuity to the port officials.

TARANTO, Italy. Lat. 40° 29' N; long. 17° 12' E. **Pop.**

28,000. **Tr.**—E. Oil, fruits, cotton, wheat, oats. **Accn.** 5 fms water close to town. Vessels drawing 18ft can enter Mare Grande, where they are well sheltered. **Charges.** On a vessel of 100 tons reg., anchorage dues £4. **Pilotage** (optional) £2 4s 6d, on 100 tons; mooring and unmooring (optional) £2 8s.

TARRAGONA. Lat. $41^{\circ} 7' N$; long. $1^{\circ} 16' E$. Pop. 19,000.

Tr.—I. Fish, coals, grain, spirits, staves, &c.; E. Nuts, almonds, wine, brandy, and oil. Accn. Harb. has 5 fms inside port; a buoy is laid down inside the harb. in 18ft of water. Charges. On a steamer with 1,500 tons of coal £252 6s 9d. Pilotage. On a vessel of 100 tons reg., cargo in of 170 tons coal, and out of 200 pipes for England, harb. pilot and mooring in and out £1 5s 8d. On a steamer discharging 1,500 tons coal, inwards and boat £7 7s 6d; outwards £5 7s 11d.

TERCEIRA, Azores. Lat. $38^{\circ} 38' 33'' N$; long. $27^{\circ} 12' 33'' W$. Pop. 15,000.

Tr.—I. Manufactured goods, iron, and provisions; E. Oranges, wheat, maize, &c. Accn. Depth from 7 to 30 fms. Charges. Port charges on a vessel in ballast, about £5, a little more if laden; mooring 12/6. Labour 2/6 per man per day. Ballast, stone 1/6 per ton alongside; sand 1/2 per ton.

TERNEUSEN, Holland. (At mouth of the Canal to Ghent.)

Lat. $51^{\circ} 21' N$; long. $3^{\circ} 48' E$. Tr.—I. Pig-iron, iron ore, copals; E. Rails, manufactured iron, zinc, &c. Accn. Tidal harb. Ships drawing 18ft can come here at ST., and 15 or 16ft at NT. Sp. rise 15ft, and N. rise 11ft. The canal is capable of receiving vessels of 2,700 tons, and has locks 39ft wide. Pilotage. See Ghent. Eng. Broker. Ysselstein.

THORSHAVEN, Faroe Isles. Pop. About 1,600. Tr.—I.

Corn, pulse, bread, malt, iron, spirits, colonial produce, lead, gunpowder, lime, bricks, timber, tar, glass, linen cloth, shoes; E. Hose, tallow, fish, train oil, feathers, skins, and butter. Accn. Plenty of water in the harb., which, however, is not very commodious. Thorshaven, the principal port of the group, is on the SE. end of the Island of Stromoe. Charges. For discharging or loading cargo at any ports of the Faroe Isles 2/2 ton.

THREE RIVERS, Canada. Lat. $46^{\circ} 22' N$; long. $72^{\circ} 31' W$.

Pop. 10,000. Tr.—I. Coal and rails; E. Lumber, phosphate, and furs. Accn. Large and commodious harb., 14 to 36ft of water at wharves. Charges. Harb. dues 1½d per ton on ships, steamers a quarter of that, every 24 hours. Pilotage. 6/3 per ft to and from Quebec (78 miles).

TOCOPILLA, Bolivia. Lat. $22^{\circ} 13' S$. Pop. 3,500. Tr.

—E. Copper ore, &c. Tocopilla was declared an open port by the Bolivian Government in May, 1871. The anchorage, which is in about 15 fathoms, is open to the Pacific and subject to a heavy swell. Vessels are discharged and loaded by means of lighters. Charges. Same as at Valparaiso.

TOME.—See Concepcion Bay.

TONSBERG, Norway. Lat. $59^{\circ} 15' N$; long. $10^{\circ} 25' E$.

Tr.—I. Coal, and ships' stores, iron, grain, &c. E. Wood, timber, seal oil, &c. Accn. Depth of water 18ft in harb.; vessels drawing 14ft can easily enter. Charges. Harb. dues 10½d ton cargo in or out. Discharging coals 4d ton, iron 5d. Port dues and expenses of vessel 290 tons £26. Pilotage. On a vessel of 300 tons, in 48/9; out 29/3. Towage. On a vessel of 250 tons with rails in and ballast out £4 6s 8d.

TORRE-ANNUNZIATA, Italy. Accn. Excellent modern port, with spacious entrance between two moles; vessels of 23ft dft. can safely enter. Tr.—I. Coal and grain in large quantities. Charges, Pilotage, &c., see Naples.

TOULON, France. Lat. $43^{\circ} 7' 21''$ N; long. $5^{\circ} 55' 37''$ E. Pop. About 90,000. Tr.—I. Grain, wood, coal, hemp, and salt provisions; E. Wine, salt, oil, capers, figs, raisins, almonds, oranges, cloth, hosiery, soap. Accn. This port has a fine harb and roadstead, with 6 or 7 fms of water in the Little Road opposite the town. Toulon is the principal station of the French navy in the Mediterranean. There are eight graving docks, ranging from 243ft to 535ft in length. Charges. Tonnage dues $9\frac{1}{2}$ d reg. ton. Ballast $1/9\frac{1}{2}$ ton. Brokerage 3d ton for sailing vessels, 4d ton for steamers. Pilotage. On vessel of 100 reg. tons with cargo, in and out £2 7s 6d. Eng. Brokers. Bernard, Martel.

TOWNSVILLE, Queensland. Lat. $19^{\circ} 15'$ S; long. $146^{\circ} 49'$ E. Pop. 11,500. Accn. Good anchorage two miles from wharves; Government pier being constructed which will enable ships to discharge alongside. Pilotage. 4d. per ton in, same out.

TRAPANI, Italy. Lat. $38^{\circ} 0' 40''$ N; long. $12^{\circ} 30' 16''$ E. Pop. 30,000. Tr.—E. Salt, sulphur, ore, soda, oil, and wine. Accn. Plenty of water for vessels of 20ft dft. Trapani is on the W. coast of Sicily.

TRAVEMUNDE, Germany. Lat. $54^{\circ} 00'$ N; long. $10^{\circ} 53'$ E. Tr.—Same as Lubeck. Accn. Depth of water on the bar $17\frac{1}{2}$ ft. Vessels able to cross the bar can lie alongside the pier; vessels drawing 12ft can ascend as far as Lubeck. Charges. Vessels entering this harb. on account of distress are exempt from dues, but no trade can be carried on during their stay. Charges about the same as Lubeck. Pilotage. See Lubeck. Towage. See Lubeck.

TREBIZOND, Black Sea. Lat. $41^{\circ} 1'$ N; long. $39^{\circ} 45' 48''$ E. Pop. 40,000. Tr.—I. Cotton and woollen goods, hardware and tinplates, provisions; E. Silk, raisins, tobacco, cereals, wool. Accn. Good anchorage in 4 to 6 fms. Charges. Moderate. Pilotage. 4/ to harb. master.

TREGUIER, France. Lat. $48^{\circ} 47'$ N; long. $3^{\circ} 14'$ W. Pop. About 4,000. Tr.—I. Fruits, tobacco, linseed, salt, cider, grain; E. Flour, alcohol, oysters, &c. Accn. There are 12ft of water close to the quays. Charges. Port charges of a vessel of 250 tons £38 19s. Pilotage. On brig 175 reg. tons, cargo in, drawing $10\frac{1}{2}$ ft, ballast out:—to the sea £1 5s 4d; across the bar inwards £1 15s 10d; out £2 0s 9d. Eng. Brokers. Gnic & Le Milier, Lemarre.

TRELLEBORG, Sweden. Tr.—I. Coals, &c.; E. Barley, &c. Accn. Vessels of 15ft can load alongside the piers and quays. Charges. On vessel of 104 reg. tons £10 7s. Pilotage. On a vessel of 104 reg. tons, ballast inwards, and cargo of barley outwards, in $6/4\frac{1}{2}$, out $10/11$. On a vessel of $112\frac{1}{2}$ tons reg., with cargo of coals in and barley out, in and out, $12/6\frac{1}{2}$. Towage. About 2d reg. ton during winter months, and about 1d during summer. Tugboats always ready.

TREPORT, France. Eng. Brokers. Coquais, Gelée.

TRIESTE, Austria. Lat. $45^{\circ} 38' 49''$ N; long. $13^{\circ} 46' 15''$ E. Pop. 155,000. Tr.—I. Cotton, tobacco, coffee, fish, petroleum, iron, chemicals, and coals; E. Corn, wine, oil, wool, skins, metals, staves, timber, marble, sugar, fruit, &c. Accn. Two ports: the old port and the new port, which is to be

enlarged at the expense of the old one, with accn. for a considerable number of vessels of any size. Inside the old harb. is the "canal," accessible to vessels not drawing more than 14ft. Trieste is the principal seaport city of the Austrian Empire, and will be a free port till the end of 1889, when goods will have to pay duty if not deposited in the bonded warehouses. A graving dock for vessels up to 4,000 tons, another for vessels of 3,500 tons, and a slip for vessels up to 1,200 tons. **Charges.** 101 to 150 tons 3d per ton, 151 to 200 tons 4d, 201 to 300 tons 5d, 301 to 400 tons 6d, 401 tons and upwards 7½d per ton. On touching other Austro-Hungarian ports and continuing the same operation (loading and unloading only) from 1 to 4 farthings per ton according to size. The canal dues are ½d per ton over the above tariff. Expenses of a steamer of 1,000 tons about £65. **Pilotage.** £3 is a fair arrangement from Rovigno, and £1 to £1 4s if taken a few miles from the roads. For watching 4/ day each pilot, and the same per night. No duty for shifting. **Towage.** There are no regular steamtugs, but the several steamboats employed in short trips between Trieste and the small towns of the neighbourhood render very useful services for a reasonable rate, viz. :—£2 to £2 10s for about 3 miles, and less in proportion; £1 4s to £1 10s for a shifting within the roads and the ports.

TRINCOMALIE, Ceylon. Lat. 8° 33' 30" N; long. 81° 13' 10" E. **Pop.** 21,000. **Accn.** The largest ships can lie alongside wharf; the merchant anchorage is in 4 to 8 fms of water, about 4 cable lengths from the wharf. **Charges.** Tonnage dues see Colombo. **Pilotage.** Rates payable by all square-rigged vessels, sloops or schooners :—Vessels of 600 tons and upwards, Back Bay, £2; inner harb. £4. Vessels of 400 tons and under 600, Back Bay, £1 10; inner harb. £3. Vessels of 200 tons and under 400, Back Bay, £1 1s; inner harb. £2 2s. Vessels of 100 tons and under 200, Back Bay, 10/6; inner harb. £1 1s. The above rates are charged on all vessels going into the inner harb., whether they make a signal for a pilot or not. In Back Bay the charge is only made if the pilot goes on board.

TRIPOLI, Barbary, Africa. Lat. 32° 55' N; long. 13° 10' E. **Pop.** About 16,000. **Tr.**—I. Iron, lead, timber, steel, glass, cutlery, earthenware, alum, vitriol, sugar, coffee, tea, cinnamon, spirits, wines, salt fish, firearms, and British and foreign manufactured goods; E. Wheat, barley, oil, wool, butter, dates, madder, cattle. **Accn.** Vessels of 18ft dft. can safely enter. **Pilotage.** 30/ each way.

TROCADERO, Spain. **Tr.**—Trocadero is the principal port of shipment of sherry wine. **Accn.** 5 fms at LW. at the end of the Britannia Pier; vessels of 1,000 tons can lie alongside the wharf and take in cargo. **Charges.** Tonnage dues for cargo from America 2/8 to 3/4; Europe 1/4 to 1/8. **Pilotage.** See Cadiz.

TROMSO, Norway. Lat. 69° 40' N; long. 18° 55' E. **Tr.**—I. Corn and colonial produce, coals, and salt; E. All kinds of dried fish, cod oil, seal oil, hides, &c. **Accn.** The harb. is safe, and there is anchorage all over the Sound for vessels of any size. **Charges.** Harb. master's dues 4/4 for every vessel. Light dues 4½d ton.

TROUVILLE, France. (S. side Mouth of the Seine.) Lat. 49° 22' N; long. 0° 04' E. **Pop.** 6,000. **Tr.**—

I. Coal, cement, wood, pig-iron, and ice; E. Corn, barley, wheat, seed, pit-props and iron ore. **Accn.** Harb. and floating dock. The harb. can be entered by vessels of 12ft dft. at lowest NT. A new channel with a maximum depth of 16ft at ST. has been dug at the entrance. The dock has an average depth of 17ft. **Charges.** On a vessel of 200 reg. tons £19. Port dues same as Honfleur, with the exception of the harb. dues of 4½d. **Pilotage.** The large roadstead is three miles off, rate 2½d ton; to the smaller roads one-fourth less. Steamers pay one-half inwards and two-thirds outwards. Loaded sailing vessels also two-thirds. Ships loaded from other ports than those of the United Kingdom and European possessions pay one-half besides above rates. On a brig of 300 reg. tons (carrying 500 tons dead weight), cargo in and ballast out, drawing 15ft loaded, and also on a steamer of 453 reg. tons (790 tons dead weight), in, brig £3 2s 5d; steamer £2 7s 2d; out, brig £1 11s 2d; steamer £1 11s 6d. **Eng. Brokers.** J. Greenhalgh, and Geo. Lefebvre.

TUNIS, Africa. Lat. 36° 48' 36" N; long. 10° 18' 37" E. **Pop.** About 100,000. **Tr.**—I. Woollens, coarse German linens, cotton stuffs, hardware, sugar, coffee, spices, tin-plates, gunpowder, lead, alum, dye stuffs, wine, silk, Spanish wool, &c.; E. Hides, wax, morocco leather, sponges, coral, dates, corn, olive oil, woollen skull caps, &c. **Accn.** Vessels discharge and load in the roadstead in 3 to 5 fms.

TVEDESTRAND, Norway. Lat. 58° 37½' N; long. 8° 56' E. **Tr.**—I. Coals, coke, and iron; E. Timber, deals, battens, boards, and ice. **Accn.** Sufficient water for all-sized vessels. A pilot is necessary to enter. **Charges.** On a vessel of 233 tons of 13ft dft. £22 17s. **Pilotage.** On a vessel of 233 reg. tons with cargo in and out, 13ft dft., in, summer rate £1 6s 6d; out, summer rate 16/.

TWILLINGATE, Newfoundland. Lat. 49° 43' N; long. 54° 45' W. **Tr.**—I. Salt, biscuits, butter, dry goods, flour, pork; E. Codfish, seals, pickled salmon, preserved lobsters, seal oil, skins and furs. **Accn.** The outer part of the harb. is deep, but upper part shallow; the best anchorage is on N. side, in 5 fms. The harb. is safe, except when it blows from the NE. **Charges.** Light dues 1/ ton for 12 months. Labour about 3/ day. Ballast 2/6 ton. **Pilotage.** By agreement with fishermen, about 2/ foot.

UDDEWALLA, Sweden. Lat. 58° 20' N; long. 11° 54' E. **Pop.** 5,700. **Tr.**—I. Coal and salt; E. Oats, boards, deals, battens, and pit props. **Accn.** Harb. has 18ft. of water on bar, and 15 to 16ft inside. **Pilotage.** For the first 12ft 18/, and 9½d for each additional foot.

ULEABORG, Russia. Lat. 65° 00' N; long. 25° 40' E. **Pop.** 12,000. **Tr.**—I. Colonial produce, coals, salt, &c.; E. Barrels of tar, pitch, deals, timber, fish, and boards. **Accn.** There are only 10ft in inner harb. **Charges.** Vessels of 200 tons about £15 10s. **Pilotage.** On a vessel of 200 tons entering in ballast and clearing out with cargo, in 10ft dft. £3; out, 13ft dft. £3 10s 6d.

UMEA, Sweden. Lat. 63° 49' N; long. 20° 18' E. **Pop.** 2,200. **Tr.**—I. Little or nothing, occasionally a cargo of salt; E. Deals, battens, boards, timber, and dried fish. **Accn.** Has a good harb., where vessels can load to 21ft. **Pilotage.** On

a vessel of 157 tons reg., ballast in and cargo out, in £1 3s 10½d, out £1 2s 3¼d.

VALENCIA, Spain. Lat. 39° 28' N; long. 0° 19' W. Pop. 160,000. **Tr.**—I. Provisions, guano, petroleum, coal, iron, &c.; E. Olives, oil, wine, tiles, and fruit. **Accn.** Harb. gives shelter to vessels drawing 23ft of water; ships of 23ft dft. can anchor alongside wharves stern on. **Charges.** Vary very much. **Pilotage.** In or out. From 8/4 per ton for vessels under 100 tons to £1 5s per ton for vessels of 2,000 and upwards. **Moor-**ing, from 4/2 to 12/6 ton. These dues are payable on the gross reg. tons. From sunset to sunrise these charges are doubled.

VALPARAISO, Chili. Lat. 33° 1' 53" S; long. 71° 38' W. Pop. 102,000. **Tr.**—I. Manufactured goods, machinery, iron, coal, lumber, petroleum, &c.; E. wheat, flour, copper ore, hides, wool, tallow, &c. **Accn.** The bay is well sheltered except towards the north, and during winds from this quarter in the winter season shipping is much exposed, although with good moorings there is no danger. There are two large floating docks, capable of receiving vessels of 3,000 tons, and a large wharf. Large vessels anchor in 10 to 25 fms, on good-holding muddy ground. Two floating dry docks, 300 by 60 by 21ft, and 265 by 15 by 16ft. **Charges.** Hospital dues 2½d per reg. ton, light and tonnage dues 5d. **Pilotage.** From 15/ for vessels of 100 to 200 tons to £2 14s for vessels of 1,000 to 1,200 tons and over, besides 14/ for boat hire. **Towage.** Steamtugs usually assist in mooring and unmooring; their charge is 5d reg. ton for each operation. These tugs may also be employed by vessels wishing to be towed from or to sea, the cost of such services ranging from £4 3s 4d to £8 6s 8d, according to size of vessel.

VANCOUVER, British Columbia. Lat. 49° 18' N; long. 123° 7' W. **Accn.** Depth of from 23ft to 25ft close by wharf 1,000ft long. **Charges.** No port charges. **Towage.** Minimum, vessels under 500 tons £72 18s 4d; maximum, over 1200 tons £125.

VEFSEN, Norway. Lat. 65° 56' N; long. 13° E. **Tr.**—E. Deals and boards. **Accn.** There is sufficient depth of water for largest ships, but vessels visiting this port should be well provided with cables. **Charges.** On vessel 380 tons about £33. **Pilotage.** On a barque of 250 reg. tons, ballast in, timber out, inwards from Villa £7; outwards to Villa £7 12s. Pilots from Villa have to stay on board four days without extra pay, after that 2/3 day. **Towage.** Steamers passing north and south every week can be had for towage.

VENICE, Italy. Lat. 45° 26' N; long. 12° 20' E. Pop. About 124,000. **Tr.**—I. Sugar, coffee, cotton, and woollen fabrics, cotton yarn and raw cotton, hardware goods, dye stuffs, salted fish, and grain. **Accn.** Vessels drawing 23ft can reach Venice.

VERA CRUZ, Mexico. Lat. 19° 11' 30" N; long. 97° 8' W. Pop. About 16,000. **Tr.**—I. Woven fabrics, wax, hardware, cutlery, paper, brandy, wines, metals, earthenware, and quicksilver; E. Bullion, cochineal, sugar, flour, drugs, indigo, pimento, provisions, sarsaparilla, leather, vermill, logwood, and coffee. **Accn.** The harb. is not adapted for vessels drawing over 18½ft. **Pilotage.** 10/5 foot. **Towage.** 4/6 per foot.

VICTOR HARBOUR, South Australia.—See Port Elliott, Victor, and Rosetta Harbours.

VICTORIA HARBOUR (73 miles E. of Esquimaux) **Brit. Col.**

Lat. $46^{\circ} 30' N$; long. $123^{\circ} 20' W$.

Pop. 8,000. **Tr.**—I. General merchandise of every description; E. Lumber, coal, fish, furs, oil, skins, wool, and gold. **Accn.** There are wharves alongside which vessels of 16ft dft. can lie at LWST. It is only accessible to vessels of 15ft dft., although those of 18ft dft. can enter at the top of ST. A graving dock 430 by 95 by 26½ft.

VICTORIA HARBOUR, W. Coast of Africa. **Tr.**—I.

Piece goods, machinery, rice, birds' nests, and specie; E. Sago, coal, timber, and cattle. **Accn.** Vessels drawing 14ft can lie alongside most of the small jetties which are private property. **Pilotage.** 5/ foot.

VILLA REAL DE SAN ANTONIO, Portugal. **Accn.** At

LST. there are only

about 6ft of water on bar; springs rise 12ft. **Pilotage.** Vessels under 132 tons 1½d ton, and ¾d for each additional ton above 132, provided always that the pilotage on any vessel shall in no case exceed £12 3s 4d, or be less than ¾d. River pilotage 5/ for the first day, and 2/6 day after. **Towage.** Between Villa Real and Pomeroy 3d reg. ton each way.

VOLO, Greece. Lat. $39^{\circ} 21' N$; long. $22^{\circ} 58' E$. **Pop.**

7,000. **Tr.**—I. Iron, tin, coffee, refined sugar, spice, rice, leather, hides and skins, cotton and woollen goods, earthen and glass ware, and cutlery; E. Wheat, rye, barley, Indian corn, sesame seed, wool, silk, tobacco, cotton, &c. **Accn.** The harb. is safe and well sheltered, with anchorage in 5 to 12 fms.

WALDEMARSVIK, Sweden. Lat. $58^{\circ} 12' N$; long. $16^{\circ} 37'$

E. **Tr.**—E. Oats, pit props, timber, and pig-iron. **Accn.** Safe harb. for vessels of 14ft dft. **Charges.** On a 273 ton vessel, dft. say 12ft, about £19 5s. **Pilotage.** On a steamer of 273 reg. tons, ballast in and cargo out, 9ft dft. in, 13ft out:—In, £1 18s 7d; out, £2 8s 10½d.

WALLAROO, South Australia. Lat. $33^{\circ} 55' 49'' S$; long.

$137^{\circ} 37' 30'' E$. **Pop.** 3,000. **Tr.**—E. Copper.

Accn. Vessels of any dft., say up to 24ft, can ride in the bay in perfect safety. There is a jetty 800ft long, with 16ft water at outer end, erected by a private company. **Charges.** Ballast alongside 3/ ton, discharging alongside 1/9 ton. Light dues 1d ton in or out. Wharfage ½d ton. Disbursements of a vessel 800 tons £18 3s 4d. **Pilotage.** £2 in or out for vessels under 200 tons, and ½d ton in and out, over 200 tons. **Towage.** No steamtugs stationed, or required.

WARBERG, Sweden. Lat. $57^{\circ} 6' N$; long. $12^{\circ} 14' E$. **Pop.**

2,700. **Tr.**—E. Grain, stone, salt fish, &c. **Accn.**

Harb. has 14ft of water.

WARNEMUNDE, Germany. Lat. $54^{\circ} 11' N$; long. $12^{\circ} 6' E$.

Pop. 10,000. **Tr.**—Same as Rostock.

Accn. 16 to 17ft across the bar. Vessels drawing 14ft may ascend from this port to Rostock. The pier has been extended by 400ft. **Pilotage.** See Rostock. **Towage.** See Rostock.

WELLINGTON, New Zealand. Lat. $41^{\circ} 16' S$; long. 179°

$19' E$. **Pop.** 10,000. **Tr.**—I. Dry goods,

furniture, coal, &c.; E. Wool, grain, vegetables, &c. **Accn.** Port

Nicholson is an excellent and spacious harb.; there is wharfage accommodation for vessels drawing 25ft. There is sufficient water for the largest ships. **Charges.** Light dues 4d and 6d ton. Shifting 1d ton. Port charges 2d ton. Ballast 5/ ton. **Pilotage.** (In and out), sailing vessels of 500 tons or under 6d reg. ton; over 500 tons, first 500 tons 6d, for every ton over 500 tons 4d; steamers of all sizes two-thirds of the rates for sailing vessels.

WEYMOUTH, N.S. Lat. 44° 26' N; long. 66° W. **Tr.**—E. Deals and boards, principally to Great Britain and West Indies. **Accn.** Vessels of 15ft dft. can cross bar at OST., and lie aground alongside of wharves. **Charges.** Port dues 1d ton. **Pilotage.** Nominal, say 12/ to 15/.

WHAMPOA.—See Canton.

WIBORG, Russia. Lat. 60° 43' N; long. 28° 45' E. **Pop.** 13,000. **Tr.**—I. Sugar, coffee, salt, coals, wine, spirits, grain, herrings, tallow, &c.; E. Timber, butter, bristles, candles. **Accn.** Vessels drawing 10½ft can ascend to Wiborg. **Charges.** Expenses of a vessel of 1,247 tons, ballast in and deals out, about £170. Vessels drawing 15ft can enter outer port of Drang-sound, which is about ten miles from Wiborg. **Pilotage.** From £3 15s 1d for vessels of 9ft dft. to £9 16s 6d for vessels of 22ft dft.

WILHELMSHAVEN, Germany. Lat. 53° 32' N; long. 8° 9' E. **Tr.**—I. Coals, timber, and bricks; E. Oats, beans, and peas. **Accn.** A tidal harb. and three dry docks. Sp. rise 12ft, and N. 9ft. **Charges.** On barque, 400 tons, cargo in and ballast out, £97 18s 4d. **Pilotage.** On a brig of 180 tons, cargo in and ballast out, drawing 14ft, loaded: Sea pilotage to dock 87/, into dock 11/, out of dock 6/, to sea 50/.

WILMINGTON, California, U.S. Lat. 33° 43' N; long. 118° 15' W. **Pop.** 800. **Tr.**—I. Coal, iron, lumber, general merchandise; E. Grain, wool, wine, and fruits. **Accn.** Has 10ft of water on the bar at LT. and 15ft at OHT. The harb. within the bar has a ship channel several miles in length, with a depth of 26ft at LT. at the lower end, shoaling after 2 miles to 16ft. **Charges.** No port charges.

WILMINGTON, Cape Fear River, U.S. Lat. 34° 11' N; long. 77° 50' W. **Pop.** About 17,000. **Tr.**—I. Salt, general merchandise, &c.; E. Rice, turpentine, resin, cotton, wood, &c. **Accn.** Depth of water 16ft at LT. from the mouth of the Cape Fear River to Wilmington, 12 to 20ft alongside the wharves. **Charges.** On a vessel of 179 reg. tons £35 14s 7d. **Pilotage.** Bar pilotage, from £1 18s 0½d for 6 and under 6½ft to £13 14s 10½d for 17½ and under 18ft. River pilotage, from Smithville to Wilmington and *vice versa*, from £2 0s 1½d for 6 and under 6½ft to £9 6s 1d for 15 and under 15½ft; from Five Fathom Hole to Wilmington and *vice versa*, from £1 9s 7½d for 6 and under 6½ft to £6 6s 10½d for 15 and under 15½ft; from Smithville to Brunswick, or from Brunswick to Wilmington or *vice versa*, half the rate from Smithville to Wilmington; from Smithville to Five Fathom Hole, from Five Fathom Hole to Brunswick, from Brunswick to Campbell's Island, from Campbell's Island to Wilmington or *vice versa*, one quarter the rate from Smithville to Wilmington. **Pilotage** must be paid whether pilot is employed or not.

WILMINGTON Delaware, U.S. Lat. 39° 47' N; long. 75° 48' W. **Pop.** About 35,000. **Tr.**—I. General merchandise, &c.; E. Powder, cars, machinery, watches,

flour, corn, meal, &c. **Accn.** Vessels drawing 17ft can reach the town at H.W. **Charges.** None. **Pilotage.** None.

WINDSOR, N.S. Lat. 45° N; long. $64^{\circ} 9'$ W. **Tr.**—I. Ship-building materials; E. Deals and plaster. **Accn.** Port perfectly safe for a vessel drawing 14ft, which can lie in mud alongside wharves. At HWST. 48ft; N. 40ft; at LW. channel is almost dry. **Charges.** No charge is made for wharfage. 2/1 at custom-house the only port charge. **Towage.** In $2\frac{1}{2}$ d, and out, loaded $4\frac{1}{2}$ ton.

WISBY, Sweden. Lat. $57^{\circ} 40'$ N; long. $18^{\circ} 16'$ E. **Pop.** 16,000. **Tr.**—E. Marble, lime, cattle, and hops. The forests produce large trees fit for exportation. **Accn.** 14 to 16ft in the new harb., and in the old harb. 11 to 13ft. **Charges.** Moderate. On a vessel of 129 reg. tons, cargo of coals in and ballast out, about £10. **Pilotage.** On vessel drawing 11ft in and 8ft out, 14/3.

WISMAR, Germany. Lat. $53^{\circ} 53'$ N; long. $11^{\circ} 28'$ E. **Pop.** 16,000. **Tr.**—Same as Rostock. **Accn.** Close to the town there are $16\frac{1}{2}$ ft of water, but the roads are safe and deep. **Charges.** A little cheaper than Rostock. **Pilotage.** See Warnemünde. **Towage.** See Rostock.

WOLGAST, Germany. Lat. $54^{\circ} 4'$ N; long. $13^{\circ} 52'$ E. **Pop.** 6,000. **Tr.**—E. Wheat, &c. **Accn.** 15ft in the harb.; vessels drawing more than 13ft must lighten at Ostertief. **Charges.** Port charges of a vessel 110 tons £7 10s. **Pilotage.** On vessel of 210 reg. tons loaded £2 4s. **Towage.** From Wolgast to sea on vessel of 198 tons, 12ft dft., about £7 6s.

YARMOUTH, N.S. Lat. $43^{\circ} 50'$ N; long. $66^{\circ} 10'$ W. **Pop.** 8,000. **Tr.**—E. Fish, lumber, and deals. **Accn.** Vessels of any dft. can enter at half tide; vessels of 16ft dft. can lie afloat at any of the wharves. **Charges** are low. Harb. dues 14/7. Wharfage and labour cheap. **Pilotage.** In and out about 1d ton. **Towage.** 2d reg. ton inward and outward.

YENIKALE.—See Kertch.

YOKOHAMA, Japan. Lat. $35^{\circ} 26'$ N; long. $139^{\circ} 40'$ E. **Pop.** 50,000. **Tr.**—I. Dry goods, coal, petroleum, sugar, &c.; E. Tea, silk, lacquer ware. **Accn.** It is a good and safe port for vessels of any size. Sp. rise $6\frac{1}{2}$ ft; N. $4\frac{3}{4}$ ft. A graving dock 393 by 82 by 21ft, and dry dock 300 by 52 by $14\frac{1}{2}$ ft. **Charges.** Expenses of a vessel 1,188 tons, cargo coal in and ballast out, £438 17s 5d. **Pilotage.** In or out 12/6 foot.

YSTAD, Sweden. Lat. $55^{\circ} 27'$ N; long. $13^{\circ} 30'$ E. **Pop.** 8,000. **Tr.**—I. Coals, iron, salt, potatoes, oilcake, bones; E. Grain, oak, timber, beech, staves, and firewood. **Accn.** A safe harb. with a fine quay. Vessels of 16ft dft. can lie alongside the pierhead. Ystad is situated about 36 miles ESE. of Malmo. A patent slip 250 by 16ft for vessels up to 300 tons. **Charges.** For a vessel of 150 tons £13 to £15. **Pilotage.** On a ship of 150 reg. tons:—(a) coming with cargo from a foreign port, and going with cargo to a foreign port, (b) coming with cargo from, and going in ballast to a foreign port, (c) coming in cargo from a foreign port, and clearing coastwise in ballast:—(a) in, 12ft, $14\frac{1}{2}$; out, 12ft, $14\frac{1}{2}$; (b) in, 12ft, $14\frac{1}{4}$; out, 9ft, 9/4; (c) in, 12ft, $14\frac{1}{2}$; out, 9ft, 9/4. **Towage.** £1 6s 7d for vessels up to 250 reg. tons, above that size about 14d per reg. ton.

ZANTE, Greece.—Lat. $37^{\circ} 47' N$; long. $20^{\circ} 54' 42'' E$.
 Pop. 20,000. **Tr.**—I. Lumber, sugar, coffee, iron, coal, petroleum, &c.; E. Currants, olive oil, and wine. **Accn.** A capacious harbour. Ships anchor in from 10 to 12 fms at a distance of 500 to 1000 yds from and opposite to the town, sheltering themselves behind a mole or jetty when the wind is from the N.E. **Charges.** 15c. per ton with cargo in and out, 10c. per ton with cargo one way only. Expenses of loading a vessel of 298 tons about £51. **Pilotage.** From 7/ to 21/.

ZEBU, Philippine Islands. Lat. $10^{\circ} 17' N$; long. $130^{\circ} 06' E$.
 Pop. 10,000. **Tr.**—E. Chiefly sugar and hemp. **Accn.** Vessels (merchant) generally anchor SSW. of the fort, in 7 fms of water. **Charges.** On a vessel of 870 tons £103. **Pilotage.** On a vessel of 869 tons, in ballast inwards, and outwards with cargo of sugar, shells, hemp, &c., in or out £10. On a ship of 1,434 tons reg. (1,763 Spanish tons), ballast in, and cargo of sugar and hemp out, shifting anchorage £1 0s 10d, inwards £5 16s 8d, outwards £2 18s 4d.

ZIERIKZEE, Holland. THW. 2h; Sp. rise $10\frac{1}{2}$ ft; N. 9ft.
Tr.—I. Coals, wine, and provisions; E. Madder. **Accn.** Harb. about $1\frac{1}{2}$ miles long, with accn. for ships drawing 16ft. There are also two shipbuilding yards. **Charges.** On a vessel drawing 15ft £12 11s 8d. **Pilotage.** On vessel of 226 reg. tons, 15ft dft, inward £5 15s, in winter from Oct. 1 to April 1, 18/6, in harb. 15/10, to sea 21/4, in winter 24/, moving each time 2/6. **Towage.** Under 300 to 1,000 tons, Helvoet to sea, from £6 5s to £13 6s 8d; ditto to Zierikzee, or *vice versa* £9 3s 4d to £18 6s 8d; ditto to Dordrecht £6 13s 4d to £15 16s 8d; Zierikzee to sea £4 3s 4d to £10; ditto to Dordrecht £10 to £17 10s; sea to Zierikzee or Helvoet £7 10s to £19 11s 8d; each 10 tons above 1,000, 4d. Two ships being towed together, each ship pays £1 13s 4d less; the second vessel has to use one hawser. One ship wishing two boats pays £3 6s 8d more for the second boat.

TARIFFS OF ALL NATIONS.

Corrected to October 15th, 1889.

I.—UNITED KINGDOM.

Articles subject to import duties in the United Kingdom, and the rate of duty levied upon each article, distinguishing the duties levied as ordinary import duties and those levied to countervail Excise and other Inland Revenue duties upon British productions, according to the tariff in operation at the present time. No export duties are levied in the United Kingdom.

ORDINARY IMPORT DUTIES.

Cocoa.—Raw, per lb., 1d.; husks and shells, per cwt., 2s.; cocoa or chocolate, ground, prepared, or in any way manufactured, per lb., 2d.

Coffee.—Raw, per cwt., 14s.; kiln-dried, roasted, or ground, per lb., 2d.

Chicory.—Raw or kiln-dried, per cwt., 13s. 3d.; roasted or ground, per lb. 2d.; coffee, chicory, or other vegetable matter applicable to the uses of coffee or chicory, roasted and ground, mixed, per lb., 2d.

Fruit (Dried).—Currants, figs, fig-cake, plums not preserved in sugar, prunes, and raisins, per cwt., 7s.

Tea, per lb., 6d

Tobacco, per lb.—*Unmanufactured*: stemmed or unstemmed, containing in every 100 lbs. weight thereof 10 lbs. or more of moisture, 3s. 2d.; containing less than 10 lbs. of moisture, 3s. 6d.; *manufactured*: cigars, 5s.; cavendish or negrohead, 4s. 6d.; snuff, containing in every 100 lbs. weight thereof, more than 13 lbs. of moisture, 3s. 9d.; not more than 13 lbs. of moisture, 4s. 6d.; other manufactured tobacco, and cavendish or negrohead manufactured in bond from unmanufactured tobacco, 4s.

Wine, per gallon.—Containing less than 30 degrees of proof spirits, 1s.; containing 30 and less than 42 degrees of proof spirits, 2s. 6d. With an additional duty of 3d. per gallon for every degree of strength beyond the highest above specified. Degree not to exceed fractions of the next higher degree. Additional duty on sparkling wine imported in bottle, not exceeding the proved market value of 15s. the gallon, 1s.; exceeding that value 2s. 6d.

IMPORT DUTIES TO COUNTERVAIL EXCISE DUTY.

Beer and Ale, the worts of which were, before fermentation, of a specific gravity of 1.057 degrees, per barrel of 36 gallons, 6s. 6d.; and so in proportion for any difference in gravity.

Beer, Mum, and Spruce, per barrel of 36 gallons, the worts of which were, before fermentation, of a specific gravity not exceeding 1.215 degrees, £1 6s.; exceeding 1.215 degrees, £1 10s. 6d.

Spirits and Strong Waters.—Rum, brandy, Geneva, and unenumerated spirits, per proof gallon, 10s. 4d.; liqueurs, cordials, or other preparations containing spirits, in bottle, not tested for strength, per gallon, 14s.; perfumed spirits and Cologne water, per gallon, 16s. 6d.

Chloroform, per lb., 3s.

Chloral Hydrate, per lb., 1s. 3d

Collodion, per gallon, £1 4s.

Ether, Acetic, per lb., 1s. 9d.

Ether, Sulphuric, per gallon, £1 5s.

Ethyl, Iodide of, per gallon, 13s.

Naphtha, purified so as to be potable, per proof gallon, 10s. 4d.

Soap (Transparent), in the manufacture of which spirit has been used per lb., 3d.

Varnish, containing alcohol. See Spirit Duties.

IMPORT DUTIES TO COUNTERVAIL STAMP DUTIES.

Plate (Gold), per oz. troy, 17s.

Plate (Silver), per oz. troy, 1s. 6d.

Playing Cards, per dozen packets, 3s. 9d.

Note as to Articles charged with Import Duties.—In this return sub-divisions of articles of a similar nature, and subject to the same rate of duty, are classed under one head. The total number of articles and sub-divisions of articles in the English tariff of Import Duties, was 53 in May, 1875, as compared with 397 in 1859, and 1,046 in 1840.

II.—THE COLONIES.

ABBREVIATIONS.

B. = Barbadoes.
 BG. = British Guiana.
 C. = Ceylon.
 CGH. = Cape of Good Hope.
 DC. = Dominion of Canada.
 Hon. = Honduras.
 I. = India.
 Ja. = Jamaica.
 M. = Mauritius.
 N. = Natal.
 NF. = Newfoundland.
 NSW. = New South Wales.

NZ. = New Zealand.
 Q. = Queensland.
 SA. = South Australia (and Northern Territories, indicated by NT. inserted where special rates apply to NT. only).
 Tas. = Tasmania.
 Tr. = Trinidad.
 V. = Victoria.
 WA. = Western Australia.
 a v. = ad valorem.

Acetic Acid.—See Vinegar.

Acids.—See Bleaching Materials.

Agricultural Machines.—See Iron, &c. (Machinery).

Ale.—See Beer and Ale.

Alkali.—B. 4% a v; BG. 7% a v; CGH. Caustic soda 10% a v, other kinds 15% a v; C. Manures free, other kinds 6½% a v; DC. Soda (other than sal, caustic, silicate) 20% a v, other alkalis free; I. Free; Ja. Soda free, others 12½% a v; M. Articles generally used as manures free, others 6½% a v; N. 7% a v; NF. 13% a v; NSW. Soda crystals 20/ per ton, others free; NZ. Ash caustic and sulphate, silicate, nitrate free, bicarbonate and soda crystals 20/ per ton, carbonate 40/ per ton; Q. Soda and crystals 40/ per ton, bicarbonate of soda 20/, caustic soda 30/, nitrate 5% a v, other 7½% a v; SA. Soda crystals 40/ per ton, ash, caustic, nitrate, silicate free, other 20/ per ton; Tas. Ash, caustic, and silicate free, carbonate £9 6s 8d per ton, crystals £4 13s 4d per ton; Tr. Free; V. Soda crystals 40/ per ton, other free; WA. 10% a v, soda crystals 40/ per ton.

Almonds.—See Confectionery.

Alum.—B. 4% a v; BG. 7% a v; CGH. 15% a v; C. 6½% a v; DC. Free; I. Free; Ja. 12½% a v; M. 6½% a v; N. 7% a v; NF. 13% a v; NSW. Free; NZ. Free; Q. 7½% a v; SA. 10% a v; Tas. Free; Tr. Free; V. Free; WA. 12½% a v.

Anchors.—See Iron, &c.

Apparel.—B. 8% a v; BG. 7%; CGH. 15%; C. 6½%; DC. Cotton or other material 35%, coloured fabrics, woven, of dyed or coloured cotton yarn, or part jute and part cotton yarn, or other material, except silk, 25% a v; I. Free; Ja. 12½%; M. 6½%; N. 7%; NF. 25%; NSW. Free; NZ. 15%; Q. 7½%; SA. 25% (NT.) 15%; Tas. 10%; Tr. 4%; V. 25%; WA. 12½%.

Arsenic.—B. 4% a v; BG. 7% a v; CGH. 15% a v; C. 6½% a v; DC. Free; I. Free; Ja. 12½% a v; M. 6½% a v; N. Crude with registration charge of 1/ per ton, or 6d. per package free, other 7% a v; NF. 13% a v; NSW. Free; NZ. Free; Q. 7½% a v; SA. 10% a v; Tas. Crude free, other 10% a v; Tr. Free; V. Free; WA. 12½% a v.

Awnings.—See Cottons, &c.

Bacon and Hams, per cwt.—B. 5/7½; BG. 9/4; CGH. 9/4; C. 5/7½; DC. 9/4; I. Free; Ja. 18/8; M. 4/5½; N. 9/4; NF. 10/5; NSW. 18/8; NZ. 18/8; Q. 18/8; SA. 37/4, (NT.) 18/8; Tas. 18/8; Tr. Free; V. 18/8; WA. 28/.

Bags.—See Cottons, &c.; also Linen, &c.

Barytes.—B. 4% a v; BG. 7% a v; CGH. 15% a v; C. 6½% a v; DC. Unmanufactured free, paints ground in oil 25% a v, other 20% a v; Hon. Per lb, paints 4d.; I. Free; Ja. 12½% a v; M. 6½% a v; N. Crude with registration charge of 1/ per ton, free, other 7% a v; NF. 13% a v; NSW. Paint 2/ per cwt, other free; NZ. Druggists' sundries 15% a v, paints mixed, 2/ per cwt, other free; Q. Paints 2/ per cwt, other 5% a v; SA. Paints 4/ per cwt, (NT.) 2/ per cwt, druggists' sundries 10% a v; Tas. Paints per cwt 4/8, chemicals 10% a v; Tr. Free; V. Paints ground in oil £2 per ton, do, mixed ready for use, £4 per ton; WA. 12½% a v.

Bolts.—See Linen, &c.

Beef (Salted).—B. per cwt 5/7½; BG. pickled, dried, or smoked, per barrel of 200 lbs. \$1 50c.; CGH. Per cwt 9/4; C. Per cwt 2/4; DC. Per cwt 4/8; I. Free; Ja. Dry per cwt 9/4, wet 8/5; M. Per cwt 2/0½; N. Per cwt 9/4; NF. 4/2 per 200 lbs; NSW. Free; NZ. Free; Q. 7½ a v; SA. pickled 10% a v, other 9/4 per cwt; Tas. 1/8; Tr. Except in tins 1/6 per 100 lb.; V. Per cwt 5/; WA. in pickle and brine and fresh 9/4.

Beer and Ale.—B. Per gall, in casks 2½d, in bottles 6d, with 25% additional on all duties; BG. In casks 4½d, in bottles 6d; CGH. All kinds 9d; C. In casks 3d, in bottles 3½d; DC. In casks 5d, in bottles 9d; Hon. Per lb 3d; I. All kinds 1½d; Ja. All kinds 6d; M. In casks 7½d, in bottles per doz litres 2/; N. All kinds 9d; NF. All kinds 10d; NSW. In casks 6d, in bottles 9d; NZ. In casks 1/3, in bottles 1/6; Q. In casks 9d, in bottles 1/; SA. 1/ per gallon, (NT.) All kinds 9d; Tas. In casks 9d, in bottles 1/3; Tr. In casks 6d, in bottles 1/; V. All kinds 9d, in bottles 1/3; WA. All kinds 1/.

Bells.—See Brass, Copper, &c.

Belting.—See Hides and Skins.

Biscuits.—See Confectionery.

Blankets.—See Cottons, &c.; also Woven Manufactures.

Bleaching Materials.—B. 4% a v; BG. Lime free, other 7% a v; CGH. 15% a v; C. Acids, fuller's earth free, others 6½% a v; DC. Sulphuric acid per cwt, 2/4, sulphuric and nitric combined and all mixed acids 25% a v, others free; I. Free; Ja. 12½% a v; M. Free; N. Lime (with registration charge of 1/ per ton) free, others 7% a v; NF. 13% a v; NSW. Free; NZ. Acids free, druggists' sundries 15% a v, others free; Q. Sulphuric 2/6 per cwt; SA. Nitric, sulphuric, and muriatic acid 5/ per cwt, (NT.) Sulphuric acid and bluestone free, others 10% a v; Tas. Carbonic, citric, sulphuric, carbollic, and muriatic acid, bluestone, chloride, and carbonate of lime free, tartaric 37/4 per cwt, blue 18/8, others 10% a v; Tr. Free; V. Oxalic acid, per cwt 18/8, muriatic, sulphuric, and nitric 5/; WA. Disinfectants 5% a v, others 12½% a v.

Boilers.—See Brass and Copper.

Boiler Plates.—See Iron, &c.

Bolsters.—See Household Furniture.

Bolts, Bars, &c.—See Brass and Copper.

Books.—B. Free; BG. Free; CGH. Free, with registration charge of 1/ per ton or 6d per package, reprints British copyright 20% a v; C. Free; DC. Part free, part 5% to 30%; I. Free; Ja. Free; M. Free; N. Free, with registration charge of 1/ per ton or 6d per package, reprints British copyright 20% a v; NF. Free; NSW. Free; NZ. 15% a v; Q. Free; SA. Free; Tas. Free; Tr. Free; V. Free; WA. Free.

Boots and Shoes.—See Hides and Skins (Leather and Leatherwares).

Borax (refined).—B. 4% a v; BG. 7% a v; CGH. 15% a v; C. 6½% a v; DC. Free; I. Free; Ja. 12½% a v; M. 6½% a v; N. 7% a v; NF. 13% a v; NSW. Free; NZ. Free; Q. 7½% a v; SA. 10% a v; Tas. 10% a v; Tr. Free; V. Free; WA. 12½% a v.

Bottles.—See Earthenware; also Glass.

Braces.—See Cottons, &c.

Brackets.—See Brass, Copper, &c.

Brandy.—See Spirits.

Brass and Copper.—B. Composition nails, bolts, bars, rods, spikes, and rivets copper sheets, rods, bars, bolts, spikes, nails, and rivets, 4/8 per cwt, yellow metal in sheets 4/8 per cwt, copper and brass, old 2/3 per cwt, other kinds 4% a v; BG. Fire engines, pans, teapots, tanks for manufacture of sugar and storage of water, telegraph and electric lighting materials free, other kinds 7% a v; CGH. Railway and telegraphic materials free, metal sheathing or composition 10% a v, other kinds unwrought and wrought 15% a v; C. Machinery, apparatus, and parts free, copper sheathing, bars, bolts, ingots, plates, nails, and tacks 5/7½ per cwt, brass sheets, wire, and nails 5/7½ per cwt, other kinds 6½% a v; DC. Ores free, yellow metal, bolts, bars and for sheathing free, babbit metal 10% a v, brass, old scrap, sheet, wire, round or flat free, bars, bolts, seamless drawn tubing and plain and fancy tubing 10% a v, strips for printers' rules 15% a v, buttons, all kinds 25% a v, manufactures not otherwise specified 30% a v, copper, sheet and wire, round or flat, free, old and scrap, in pigs, bars, rods, bolts, ingots, and sheathing, not planished or coated, copper seamless drawn tubing 10% a v, rivets and burrs, all manufactures not otherwise specified 30% a v, phosphor bronze blocks, bars, sheets and wire 10% a v, musical

Brass and Copper—continued.

instruments 25% a v, bells, except for churches, 30% a v, bookbinders' tools and implements and ruling machines 10% a v, plated ware 30% a v, German silver in sheets 10% a v, wire cloth of brass and copper 20% a v; **Hon.** Per lb, brass, bruto weight 4d, manufactures 14d, copper, ore, ingots, bar, sheet 4d, medical instruments 44d; **I.** Copper and brass, all kinds free; **Ja.** Pans for boiling sugar, copper pipes for conveying fluids, pumps for raising water, stills, or parts of, and parts of steam-engines, and machinery free, other kinds 12½% a v; **M.** Machinery and apparatus for manufacture or improvement of produce free, other kinds 6½% a v; **N.** Copper ore, machinery used exclusively in the manufacture of any of the productions of the soil, and in sawing timber, brick or tile making, or for agricultural, manufacturing and mining operations, distillation or other chemical processes, or in cleansing, preserving, or preparing articles for export free, with registration charge of 1/ per ton, or 6d per package, other kinds 7% a v; **NF.** Old copper and composition metal, nail strips for manufacture of cut nails, copper and composition metal and nails for sheathing the bottoms of vessels, propellers for original construction of steamers in the Colony free, copper and composition metal for ships, bar, bolt, and sheathing nails, ex. brass cut nails, machinery and parts of machinery 8% a v, all other 13% a v; **NSW.** All kinds free; **NZ.** Brass, pig, bar, sheet and solid rod tubing and stamped work in the rough for gasaliers and brackets, copper and composition, pig, bar, or sheet, rod, bolts, sheathing and nails, fine copper and brass wire for brush making, axles, axle arms, boxes, bolts, and nuts, fire-engines, gas pipes and machinery, and all material specially imported for gas works, grindery, toe and heel plates, metal frames for bags and sachels, photographic goods, printing machinery and materials, pumps and apparatus for raising water, saddlers' mounts for harness, ships' blocks, steam-engines and parts, tinsmiths' fittings, and trade furniture, tools, artificers', water pipes not otherwise described, and all materials which may be specially imported for the purpose of constructing water works free, percussion caps 1/ per 1,000, musical instruments 15% a v, nails not otherwise enumerated 3/ per cwt, other kinds 15% a v; **Q.** Copper sheet, Muntz metal, machinery for manufacturing, sawing, sewing, agricultural, mining and pastoral purposes, steam-engines and boilers free, other kinds 5% a v; **SA.** Kettles and pans 25%, stoves, cornices, ovens, fenders and fire-irons, lamps, plated goods, musical instruments 10% a v, brass castings, forged work used in the manufacture of steam-engines, pumps, iron and brass, exceeding three-inch bore, steam boilers 5% a v, copper nails 2/ per cwt, other kinds, unwrought and wrought free; **Tas.** Copper ore, ingots, sheets and plates of copper, brass, or bronze, brass cocks and tubing for engine fittings, copper or yellow metal, rod, bolt, sheathing, and nails, ships' blocks, binnacle lamps, signal lamps, compasses free, agricultural machinery, cart and carriage axle boxes 5% a v, other brass and copper ware 10% a v; **Tr.** Machinery, &c., for manufacture of produce and parts thereof free, other kinds 4% a v; **V.** Copper pig, bar, sheet, and wire free, copper wares part free and part 25% a v, plated and mixed metal ware (ex. door handles, locks, shaft tips, stump and finger joints and slot irons, used in carriage building, harness mountings and plated hames) 20% a v, springs, sofa, chair, or other furniture, types, brass, type holders, ornamental rolls, line fillets for bookbinders 10% a v, brass and gun metal, bottle jacks, branch pipes, coal scoops and scuttles, cocks, valves, and whistles, mountings and fittings, door knockers, engine castings, fenders, fire-dogs, fire-guards, gasaliers and chandeliers, gas stoves, and all kinds of finished work for gas fittings, ornamental gratings, steam-engine fittings, moulded kettles and preserving pans, cases for engines, parts of stationary and portable engines 25% a v, wire work, brass wire cloth free, other free; **WA.** Copper sheet and rod 10% a v, machinery, apparatus, &c., fire-engines, machinery for boring for water and coal, immigrants' tools and instruments of trade not exceeding £10 in value, musical instruments, and parts for places of worship, and for volunteer force free, metal sheathing and rails, gas pipes, parts of steam engines, brewery and distillery plant, wire cloth for quartz crushing machinery, and work for patent slips and docks 5% a v, pumps and metal piping for raising water, telegraphic instruments, and wire 10% a v, brass, sheet, or rolled copper, rod, sheet, and wire 5% a v.

Bread.—Tr. 1/6 per barrel.

Brewery Plant.—See Brass, Copper, Lead, &c.

Bricks.—See Earthenware.

Brimstone.—B. 4% a v; BG. 7% a v; CGH. Flowers of sulphur free, other 25% a v; C. 6½% a v; DC. Free; I. Free; Ja. 12½% a v; M. 6½% a v; N. 7% a v; NF. 13% a v; NSW. Free; NZ. Sulphur 1/ cwt.; Q. 7½% a v; SA. Brimstone, crude for manufacturing free, other 10% a v; Tas. Sulphur free; Tr. Free; V. Free; WA. 10% a v.

Bronze.—See Brass and Copper.

Building Materials.—See Lead, &c.

Burr Stones.—See Grindstones.

Butter, per cwt.—B. 7/6; BG. 9/4; CGH. Butter, including butterine, or any substance for use as, or mixing with, butter, 14/; C. 5/7½; DC. 18/8 (the importation of oleomargarine butterine, and all such substitutes for butter, is prohibited); Hon. Per lb 1½d; I. Free; Ja. 18/8; M. 4/5½; N. 28/; NF. 8/4; NSW. 1d per lb; NZ. Free; Q. 18/8; SA. 18/8, butterine 37/4 per cwt, (NT.) butter free; Tas. 18/8; Tr. 9/4; V. 18/8; WA. 18/8.

Buttons.—See Cottons, &c.; also Glass; also Gold and Silver Ware; also Lead, &c.; also Linen, &c.; also Woven Manufactures.

Cabs.—See Carriages.

Candles, per cwt.—B. 9/4; BG. Tallow 4/8, other £1 3s 4d; CGH. 9/4; C. 6½% a v; DC. Tallow 9/4, paraffine wax £1 3s 4d, other kinds (including sperm) 25% a v; Hon. Per lb 1½d; I. Free; Ja. Tallow 7/, composition wax or spermaceti 18/8; M. 6½% a v; N. 9/4; NF. 20% a v; NSW. 9/4; NZ. Tallow 4/8, other 14/; Q. 18/8; SA. 18/8, (NT.) 9/4; Tas. 18/8; Tr. Free; V. 18/8; WA. 18/8.

Canvas.—See Linen, &c.

Caoutchouc.—See Indiarubber, &c.

Cards.—See Paper, &c.

Carpets.—See Linen, &c.; also Woven Manufactures.

Carriages.—B. 4% a v; BG. 7% a v; CGH. Railway materials free, carriages, carts, and wagons, and other wheeled vehicles, including wheelbarrows 5% a v, axles, springs, and lamps, for carts and carriages 10% a v; C. 6½% a v; DC. Buggies of all kinds, farm wagons, farm, railway, or freight carts, pleasure carts, or gigs, and similar vehicles, costing less than 50 dols, 10 dols each and 20% a v; costing 50 dols and less than 100 dols, 15 dols each and 20% a v; costing 100 dols each and over, 35% a v; Hon. Carriages and horse cars, cars (railroad, steam), free; I. Free; Ja. Carriages, carts, and wagons, agricultural, free, other kinds 12½% a v; M. 6½% a v; N. railway carriages with a registration charge of 1/- per ton, free, other kinds 7% a v; NF. 25% a v; NSW. Free; NZ. Carriages, carts, drays, and wagons, 15% a v, railway carriages and perambulators free, detached parts of carriages, carriage and cart wheels 15% a v, other free; Q. 7½% a v; SA. Tilburys, dog-carts, gigs, Boston chaises, and other two-wheeled vehicles, on spring or thorough braces £10 each, express wagons and wagons for carrying goods, and single or double-seated wagons and four-wheeled buggies, without tops, mounted on springs or thorough braces £13 each, hansom cabs, safety, single, and double-seated wagons, wagonettes, and four-wheeled buggies, with tops £20 each, omnibuses and coaches, for carrying mails or passengers £40 each, barouches, broughams, mail phaetons, drags £50 each, not enumerated 25%, (NT.) Carriages, carts, wagons, and vehicles of every description, and wheels 10% a v; Tas. Traction engine carriages, carriage shafts, spokes, naves or fellos free, carriages on two wheels and springs intended to be drawn by cattle on ordinary roads £6 each, carriages on four wheels ditto £12 each; cart and carriage axles, arms and boxes 5% a v, other kinds 10% a v; Tr. Carriages on springs, four-wheeled £7 each, ditto two-wheeled £4 each, other kinds free; V. Carriages (including second-hand and carts), carts and wagons without springs, and spring carts and spring drays with two wheels 20% a v, tilburys, dog-carts, gigs, Boston chaises, and other two-wheeled vehicles on springs or thorough braces £10 each, express wagons and wagons for carrying goods, and single or double-seated wagons, and four-wheeled buggies without tops, mounted on springs or thorough braces £15 each, hansom safety cabs, single and double-seated wagons, wagonettes, and four-wheeled buggies with tops £20 each, omnibuses or coaches for carrying mails or passengers £40

Carriages—continued.

each, barouches, broughams, mail phaetons, drags and other carriages not otherwise enumerated £50 each, parts of carriages, sets of wheels (unbored and untired) £2 per set, poles 5/ each, shafts and bars 1/ per set, under gear (including axles and arms) £4 each, buggy tops (if composed principally of leather) £5 each, do. if of any other material £3 each; WA. 20% a v.

Carts.—See Carriages.

Cement.—B. Pozzolano, building and temper lime, free, cement 1/3 per barrel; BG. Lime and plaster of Paris free, other 7% a v; CGH. Barrel of 400 lbs 1/6; C. 3½d per cwt; DC. Cement raw or in stone from the quarry 4½ per ton of 13 cu. ft, burnt and unground 4½d per cwt, hydraulic or water lime, ground, including barrels, 1/8 per barrel, in bulk or bags 4½d per bushel, Portland or Roman and other kind, 20% a v; Hon. Free; I. Free; Ja. 12½% a v; M. 6½% a v; N. Portland and Roman 2/ per barrel of 400 lbs, other 7% a v; NF. 13% a v; NSW. 2/ per barrel; NZ. 1/ per barrel; Q. 2/ per barrel; SA. 2/ per barrel; Tas. Mineral 9d per cwt; Tr. Free; V. Free; WA. 2/ per barrel.

Chains.—See Gold and Silver Ware.

Cheese, per cwt.—B. 8/4½; BG. 9/4; CGH. 18/8; C. 5/7½; DC. 14/; Hon. Per lb. 1d; I. Free; Ja. 18/8; M. 4/5½; N. 14/; NF. 10/5; NSW. 18/8; NZ. Free; Q. 28/; SA. 37/4; (NT.) 18/8; Tas. 18/8; Tr. 9/4; V. 18/8; WA. 28/.

Chemicals.—See Barytes.**China.**—See Earthenware.

Chocolate and Prepared Cocoa, per cwt.—B. Cocoa 2/4, other 4% a v; BG. 18/8; CGH. Confectionery and manufactured sweets 18/8, plain chocolate 4/8, cocoa 9/4; C. 6½% a v; DC. Cocoa paste and other preparations of cocoa containing sugar 4/8 with 25% a v, other prepared cocoa and chocolate not sweetened 20% a v; I. Free. Ja. Cocoa 11/2½, other 12½% a v; M. 6½% a v; N. 1d per lb; NF. 28; NSW. £1 17s 4; NZ. £1 8s; Q. £1 17s 4d; SA. £1 8s; Tas. £1 8s; Tr. Free; V. £1 8s; WA. £1 8s.

Cigars and Cigarettes, per lb.—B. 5/; BG. 5/; CGH. Cigars 4/ with 10% a v, cigarettes 3/; C. Cigars and cheeroots 1/10½; DC. Cigars 8/4 with 20% a v; Hon. Cigars Govt. monopoly, cigarettes 2/8 per lb; I. Free; Ja. Cigars 5/; M. Cigars 1/11; N. Cigars 4/; NF. Cigars 16/8 per M with 10% a v; NSW. 6/; NZ. 6/; Q. Cigars 5/; SA. 6/3, (NT.) Cigars 5/; Tas. 5/; Tr. 2/; V. Cigars 6/; WA. Cigars 5/.

Cinders.—See Coal.

Clocks and Watches, a v.—B. 4%; BG. 7%; CGH. 15%; C. 6½%; DC. Chronometers free, clocks and parts thereof, except springs 35%, springs 10%, watches and cases 25%, watch actions or movements 20%; Hon. Per lb, clocks 9½d, watches 5/; I. Free; Ja. 12½%; M. 6½%; N. 7%; NF. 13%; NSW. Free; NZ. Movements for watches and watchmakers' materials free, other 15%; Q. 7½%; SA. 15% (NT.) 10%; Tas. Clocks for churches free, other 10%, watches 12½%; Tr. 4%; V. 20%; WA. 12½%.

Clothing.—See Cottons, &c.; also Linens, &c.; also Woven Manufactures.**Coaches.**—See Carriages.

Coal, Cinders and Patent Fuel, per ton.—B. Fuel, coal and mixed preparations thereof and coke 2/6; BG. Coal (including the package) 1/4 per hhd; loose, per ton 2/, other 7% a v; CGH. Coal, coke and patent fuel 1/ per ton; C. Free; DC. Anthracite 2/4 per ton, bituminous 2/9½ ditto, dust 20%; Hon. Coal free; I. Free; Ja. Free; M. Free; N. Coals, cinders and patent fuel with a registration charge of 1/ per ton free; NF. At St. John's, Harbour Grace, and Carbonear 1/3, other ports free; NSW. Free; NZ. Free; Q. Coals 2/ per ton; SA. Free; Tas. Coal and coke 1/, other 10% a v; Tr. Free; V. Ground coal and charcoal 20% a v, other free; WA. Free.

Cocoa.—See Chocolate.

Coffee.—B. 2/9½ per cwt; BG. 7/ per cwt; CGH. 4/2 per 100 lbs; C. Free. DC. Green free (from U.S. 10% a v), roasted 14/ per cwt (from U.S. 14/ per cwt and 10% a v); I. Free; Ja. British colonial 22½ per cwt, other 12½% a v; M. 4/5½ per cwt; N. 8/ per 100 lbs; NF. Green 22/6 per cwt, roasted 32/8 ditto; NSW. Raw 28/ per cwt,

Coffee—continued.

roasted 56/; **NZ.** Raw 28/ per cwt, roasted £2 6s 8d ditto; **Q.** Raw £1 17s 4d per cwt, roasted £2 16s ditto; **SA.** Raw, 28/ per cwt, (NT.) Raw free, roasted £1 17s 4d ditto; **Tas.** Raw 28/ per cwt, roasted £1 17s 4d ditto; **Tr.** Free; **V.** 28/ per cwt; **WA.** Raw 18/8, roasted 28/ per cwt.

Confectionery (see also Chocolate), per cwt.—**B.** 4% a v; **BG.** £1 3s 4d; **CGH.** 14/; **C.** 6½% a v; **DC.** Confectionery of sugar 4/8 with 35% a v, other kinds 20% a v; **Hon.** Biscuits per lb 4d; **I.** Free; **Ja.** 12½% a v; **M.** 6½% a v; **N.** 9/4; **NF.** 22/, jams and preserves 1d per lb; **NZ.** Almonds used in confectioners' manufactures free, other almonds shelled and plain and unshelled, and biscuits 3/, fancy biscuits, confectionery (boiled sugars, comfits, lozenges, &c.), 18/8, bottled fruits (except syrup or spirits) 1/ per doz., dried fruits 18/8, candied peel £1 8s, jams, jellies, marmalades and preserves 14/, other kinds 15% a v; **Q.** 37/4, biscuits 18/8, jams and jellies per doz reputed pints or lb jars 2/; **SA.** 28/, biscuits 18/8, (NT.) 18/8; **Tas.** 9/4, almonds 18/8, biscuits plain 9/4, fancy 18/8, candied fruits 28/, honey 18/8, confectionery 18/8, preserves, jams, jellies, &c. 9/4; **Tr.** Free; **V.** 2d per lb or reputed lb packet or pint, shelled almonds 2d per lb; **WA.** £1 17s 4d per cwt, biscuits 9/4.

Copper Wares.—See Brass and Copper.

Copperas, a v.—**B.** 4%; **BG.** 7%; **CGH.** 15%; **C.** 6½%; **DC.** Blue vitriol and precipitate of copper crude, free, other 20% a v; **I.** Free; **Ja.** 12½%; **M.** 6½%; **N.** 7%; **NF.** 13%; **NSW.** Free; **NZ.** As drugs, druggists' sundries and apothecaries' wares 15%, other free; **Q.** 7½%; **SA.** Bluestone free, other 10%; **Tas.** Free; **Tr.** Free; **V.** Free; **WA.** 12½%.

Cordage and Twine.—**B.** Cordage 1/8½ per cwt, twines 4% a v; **BG.** Cordage including gasketing 4/2 per cwt; **CGH.** 15% a v; **C.** Coir yarn, rope, fibre, and twine and strands, free, other kinds 6½% a v; **DC.** Lines and twines for use of fisheries (not sporting fishing tackle), catgut strings and whipgut free, sail twine for sails 5% a v, cordage 20% a v, silk cordage and twine 30% a v, twine of all kinds not elsewhere specified 25% a v; **I.** All kinds free; **Ja.** 12½% a v; **M.** 6½% a v; **N.** 7% a v; **NF.** Twine to be used in manufacturing net in Colony free, cordage, viz., rope and hemp, coir and manilla cables, and fishing tackle 10% a v; **NSW.** Cordage and rope 2/ per cwt, other kinds free; **NZ.** Coir yarn, twine for harvesters and binders, fishing nets and sailmakers' seaming and roping twine free, twine not otherwise enumerated 15% a v, cordage and rope 5/ per cwt; **Q.** cordage and rope 8/ per cwt, twine 9/4 per cwt; **SA.** Cordage, coir rope 5/ per cwt, other (except galvanised and other iron and steel cordage) 11/ per cwt, galvanised and iron 3/ per cwt, twines and cord, including fishing lines (except sewing or seaming twines) 18/8 per cwt, (NT.) Cordage, rope, spun yarn (except raw yarn used for manufactures) and whipcord, 3/ per cwt, cotton and linen cords 10% a v, twine free; **Tas.** Whaling gear, rope and cordage free, twine 9/4 per cwt, whipcord 10% a v; **Tr.** Cord, ferretings 4% a v, other free; **V.** Cordage, coir rope 5/ per cwt, hempen and other cordage (including all housing and seizing lines and spun yarn, except of galvanised and other iron and steel cordage) 11/3 per cwt, white lines and other descriptions not otherwise specified (except coir yarn) £1 8s per cwt, twine (except sewing or seaming, of hemp, cotton, or flax) 21/ per cwt; **WA.** 5% a v.

Corn (Wheat).—**B.** 6d per 100 lbs; **BG.** 2½d per bushel; **CGH.** 1/4 per 100 lbs, flour 1/; **C.** 6½d per bushel; **DC.** 7½d per bushel; **Hon.** Free; **I.** Free; **Ja.** 9d; **M.** 6½d per cwt; **N.** Free, with registration charge of 2d per bag or barrel; **NF.** Free; **NSW.** Free; **NZ.** 9d per 100 lbs; **Q.** 6d per bushel; **SA.** 2/ per 100 lbs, (NT.) By sea 10% a v, other free; **Tas.** 10d per 100 lbs, flour 1/3; **Tr.** 5d per bushel; **V.** 5/ per 100 lbs; **WA.** 6d per 60 lbs.

(Indian).—**B.** 6d per 100 lbs; **BG.** 5d per bushel; **CGH.** 1/ per 100 lbs; **C.** 6½d per bushel; **DC.** 3½d per bushel; **Hon.** Free; **I.** Free; **Ja.** 4d per bushel; **M.** 7½d per cwt; **N.** 1/ per cwt; **NF.** 12½% a v; **NSW.** Free; **NZ.** 9d per 100 lbs; **Q.** 6d per bushel; **SA.** 2/ per 100 lbs, (NT.) By sea 10%, other free; **Tas.** 8d per 100 lbs, corn flour and maize 1d per lb; **Tr.** 5d per bushel; **V.** 1/ per 100 lbs, maize flour 2d per lb; **WA.** 6d per 60 lbs.

Corn—continued.

(Wheaten).—B. $4\frac{1}{2}$ per barrel; BG. $4\frac{1}{2}$ ditto; CGH. $3\frac{1}{6}$ per 100 lbs; C. $1\frac{1}{10}$ per cwt; DC. $2\frac{1}{10}$ per barrel; Hon. Free; I. Free; Ja. $8\frac{1}{2}$ per barrel; M. $9\frac{1}{2}$ per cwt; N. Free, with registration charge of $2d$ per bag or barrel; NF. $1\frac{1}{10}$ per barrel; NSW. Free; NZ. $1\frac{1}{10}$ per 100 lbs; Q. Free; SA. $2\frac{1}{10}$ per 100 lbs. (NT.) By sea 10% , other free; Tas. $1\frac{1}{3}$ per 100 lbs; Tr. $3\frac{1}{4}$ per barrel; V. $2\frac{1}{10}$ per 100 lbs; WA. $20\frac{1}{2}$ per 2,000 lbs.

(Rice).—B. $6\frac{1}{2}$ per cwt; BG. $1\frac{1}{2}$ per cwt; CGH. $1\frac{1}{2}$, paddy $1\frac{1}{4}$ per 100 lbs; C. $6\frac{1}{2}$ per bushel, paddy $3d$ per cwt; DC. Paddy $17\frac{1}{2}\%$ a v, if imported direct from the country of growth, other $4\frac{1}{8}$ per cwt; I. Free; Ja. Undressed $1\frac{1}{10}$ per bushel, other $3\frac{1}{10}$ per 100 lbs; M. $6\frac{1}{2}$ per cwt; N. Free, with registration charge of $2d$ per bag or barrel; NF. $12\frac{1}{2}\%$ a v; NSW. $3\frac{1}{10}$ per cwt; NZ. $4\frac{1}{8}$ per cwt; Q. $9\frac{1}{4}$ per cwt, barley $9d$, per bushel, malting do. $1\frac{1}{6}$, maize and oats $8d$; SA. $3\frac{1}{10}$ per cwt ($4\frac{1}{8}$ per cwt in Northern Territory); Tas. $9\frac{1}{4}$ per cwt; Tr. $2\frac{1}{2}$ per cwt; V. $6\frac{1}{10}$ per 100 lbs, undressed imported into any bonded warehouse and dressed therein $4\frac{1}{10}$ per 100 lbs, do. of any kind not otherwise enumerated $2\frac{1}{10}$ per 100 lbs; WA. $2\frac{1}{10}$ per cwt.

Corrugated Iron.—See Iron, &c.

Cotton.—See Woven Manufactures (Cotton).

Crystals.—See Alkali.

Disinfectants.—See Bleaching Materials.

Dogs.—Tr. $10\frac{1}{2}$ each.

Drapery.—See Cottons, &c.

Druggists' Materials.—See Barytes; also Bleaching Materials.

Druggists' Sundries.—See Sal Ammoniac.

Dye Stuffs.—See Indigo.

Earth-closets.—See Earthenware.

Eau de Cologne.—See Perfumery.

Earthenware and Porcelain, a v.—B. Empty stoneware bottles free, bricks, $3\frac{1}{10}$ per 1,000, all other $4\frac{1}{10}$ a v; BG. Bricks $1\frac{1}{3}$ per 1,000, other 7% ; CGH. Telegraphic materials free, other kinds 15% ; C. Bricks and tiles, apparatus and parts of machinery free, other kinds $6\frac{1}{2}\%$; DC. Earthenware and stoneware (jugs, &c.) $1\frac{1}{2}$ per gallon; brown or coloured Rockingham ware, white, granite, or iron stoneware, cream-coloured ware, decorated, printed, or sponged, and all other earthenware 35% a v; Hon. Per lb earthen, stone, and china ware, according to quality, $4d$ to $1\frac{1}{2}d$; I. All kinds free; Ja. Bricks (not bath), pipes for conveying fluid, tiles free, other kinds $12\frac{1}{2}\%$; M. Bricks and tiles, apparatus for manufacture or improvement of produce free, other kinds $6\frac{1}{2}\%$; N. Bricks, fire-bricks and tiles with registration charge of $1\frac{1}{10}$ per ton free, other kinds 7% ; NF. All kinds 13% ; NSW. All kinds free; NZ. Drainage pipes, tiles, and bottles empty, all materials specially imported for the construction of gas-works, water-pipes not otherwise described, and all material specially imported for the construction of waterworks free, earthenware, chinaware, porcelain and parian ware 15% ; Q. All kinds $7\frac{1}{2}\%$; SA. chinaware and earthenware not enumerated 15% (NT.) 10% , tiles, brown earthenware, 25% ; Tas. Water pipes, drain pipes, draining tiles, fire and building bricks free, chimneys $9d$ per cwt, all other kinds 10% ; Tr. $4\frac{1}{10}$ a v; V. Fire bricks $4\frac{1}{10}$ per 100, earthenware $1\frac{1}{4}$ per cubic foot, chinaware and porcelain $2\frac{1}{6}$ ditto, brown ware and tiles 20% a v; WA. Drainage pipes and tiles, and earth-closets 5% , stone bottles and telegraphic materials 10% , other kinds $12\frac{1}{2}\%$.

Electrical Apparatus.—See Brass, Copper, &c.; also Earthenware; also Glass, &c.; also Indiarubber, &c.

Electrotypes.—See Lead, &c.

Engine Fittings.—See Iron, &c.

Epsom Salts, a v.—B. 4% ; BG. 7% ; CGH. 15% ; C. $6\frac{1}{2}\%$; DC. 20% ; I. Free; Ja. $10\frac{1}{2}\%$; M. $6\frac{1}{2}\%$; N. 7% ; NF. 8% ; NSW. Free; NZ. 15% ; Q. $7\frac{1}{2}\%$; SA. 10% ; Tas. Free; Tr. Free; V. Free; WA. $12\frac{1}{2}\%$.

Fenders.—See Brass, Copper, &c.

Fencing Wire.—See Iron, &c.

Fire Bricks.—See Earthenware.

Fireclay, a v.—B. 4% ; BG. 7% ; CGH. 15% ; C. Free; DC. Free; I. Free; Ja. $12\frac{1}{2}\%$; M. $6\frac{1}{2}\%$; N. 7% ; NF. 13% ; NSW. Free; NZ. Free; Q. $7\frac{1}{2}\%$; SA. Free; Tas. Free; Tr. Free; V. Free; WA. $12\frac{1}{2}\%$.

Fire Engines.—See Brass, Copper, &c.; also Iron and Steel.

Fire Irons.—See Brass, Copper, &c.

Fish.—B. Dried 2½d per cwt, pickled 5d per barrel, other kinds 4% a v; BG. 2/1 and 1/0½ to 8/4 respectively; CGH. Dried and pickled 9/4 (but produce of Africa, free); C. Dried 11½d per cwt, pickled 11½d per barrel; DC. Fish from Newfoundland and from the U.S. (except fish of inland lakes and rivers and fish preserved in oil) free, salted or smoked 4/8 per cwt, other kinds 20% a v; Hon. Per lb ½d; I. Free; Ja. Dried 3/11 per cwt, smoked salmon 18/8 per cwt, wet or salted 10/6 per barrel of 200 lbs, other kinds 12½% a v; M. Dried and pickled 1/0½ per cwt; N. Dried and pickled 1d per lb; NF. Cod and haddock 6/3 per cwt, other kinds free; NSW. Dried and pickled 9/4 per cwt; NZ. 2/; Q. 5/, preserved 2/ per doz lbs, salted and dried 5/ per barrel; SA. Dried and salted, and sardines (except in pickle or brine), 9/4 per cwt; preserved (except sardines), fish paste 13/8 per cwt, (NT.) Dried 9/4 per cwt, pickled 10% a v; Tas. Ditto; Tr. Dried 9/4; V. Preserved (not salted, dried, or preserved in brine) 2d per lb; WA. 12½% a v.

Floor Cloth.—See Linen.

Flour.—See Corn.

Fuller's Earth.—See Bleaching Materials.

Furs.—See Hides, Skins, &c.

Gasaliers.—See Brass, Copper, &c

Ghee.—Tr. 9/4.

Gin.—See Spirits

Glass and Glasswares, a v.—B. Bottles, empty free, other kinds 4%; BG. Electric lighting and telegraphic apparatus free, other kinds 7%; CGH. Telegraphic materials, &c., bottles of common glass, imported full free, other kinds 15%; C. All kinds 6½%; DC. Flasks and phials of 8 ounces capacity and over, telegraph and lightning rod insulators, jars and glass balls, and cut, pressed, or moulded table-ware 2½d per doz and 30% a v, glass carboys and demijohns, bottles and decanters, flasks and phials of less than 8 ounces capacity 30% a v; Hon. Per lb, glass and manufactures ½d; I. All kinds free; Ja. All kinds 12½%; M. Glass bottles full, except fancy bottles or decanters, free, other kinds 6½%; N. Glass and glasswares 7%; NF. All kinds 13%; NSW. All kinds free; NZ. Bottles of all kinds, empty (except for druggists' fittings), photographic goods, stained glass for churches, school apparatus free, crown, sheet and common window glass 2/ per 100 ft sup., plate, polished, coloured and other kinds of glass not otherwise enumerated 15%, sashes glazed with ornamental glass 4/ per pair, ditto with plain glass 2/ per pair, glass-ware and looking-glasses 15%; Q. All kinds 7½%; SA. silvered glass, glassware, cut, engraved, etched, or ground, and bottles (except medicine bottles) 25%, other 10%; Tas. 7%; Tr. Free; V. Glass free, quart bottles (ale, &c.) 6d per doz, bottles (containing pickles) 3d per doz, glassware, ground or etched 2/6, not ground, &c., 1/ per cub. ft; WA. Bottles 5%, other kinds 12½%.

Gloves.—See Cottons, &c.; also Hides, &c.; also Woven Manufactures.

Gold and Silver Wares, a v.—B. All kinds 4%; BG. All kinds 7%; CGH. All kinds 15%; C. All kinds 6½%; DC. Gold and silver leaf 30%; Hon. Per lb, jewellery, gold 5/, silver 1/8; I. All kinds free; Ja. All kinds 12½%; M. All kinds 6½%; N. All kinds 7%; NF. All kinds 13%; NSW. All kinds free; NZ. All kinds 15%; Q. Jewellery and plate 25% a v; SA. Gold leaf free, other kinds 10%, jewellery, silverware 25%; Tas. All kinds 12½%; Tr. All kinds 4%; V. Jewellery, rings of gold, finished and unfinished, but without cameos or precious stones set therein, £4 per oz troy, all other jewellery of gold, unfinished, mounted, or in parts, but without cameos or precious stones set therein, not otherwise specified £3 per oz troy, chains of gold, unfinished (except machine-made chains for fringes) £1 per oz troy, all other jewellery, whether manufactured wholly or in part, not otherwise enumerated 20%, plate of gold 8/ per oz troy, ditto of silver 2/ per oz troy, gold and silver leaf 10%; WA. All kinds 20%.

Gold Leaf.—See Gold and Silver Wares.

Goloshes.—See Hides, Skins, &c.; also Indiarubber, &c.

Grease, a v.—B. Tallow 2/3 per cwt, other 4%; BG. 7%; CGH. Tallow 1/6d per 100 lbs; C. Free; DC. Grease and grease scrap free, tallow 4/8 per cwt; I. Free; Ja. Tallow, grease, tallow-grease, or grease and slush free; M. Bone oil free, other 6½%; N. 7%; NF. Tallow 5%, other 13%; NSW. Free; NZ. Free; Q. Tallow 14/ per cwt, other 15%; SA. Turpentine and varnish 6d. per gall.; NT. Free; Tas. Tallow and suet free; Tr. Free; V. Antifriction grease 10%, other free, varnish, including lithographic, 2/ per gall.; WA. 12½%.

Grindstones and Millstones, a v.—B. 4%; BG. Millstones free, grindstones 7%; CGH. 15%; C. Free; DC. Burr stones, in blocks, rough or unmanufactured, not bound up into millstones free, grindstones 8/4 per ton, other kinds 20%; I. Free; Ja. Mills, parts of, free, other kinds 12½%; M. Machinery for manufacture of produce free, other 6½%; N. Free, with a registration charge of 1/ per ton or 6d per package; NF. Parts of machinery 8%, other kinds 13%; NSW. Free; NZ. Free; Q. Machinery for manufacturing purposes free; SA. Free; Tas. Free; Tr. Machinery for manufacture of produce free, other kinds 4%; V. Free; WA. Millstones 5%, grindstones 12½%.

Gunpowder.—Tr. 9/4.

Gutta Percha.—See Indiarubber, &c.

Haberdashery.—See Indiarubber, &c.; also Linen, &c.; also Woven Manufactures.

Hams.—See Bacon and Hams.

Handkerchiefs.—See Linen, &c.

Hardware.—See Household Furniture.

Hats (Beaver, Silk and Felt) a v.—B. 4%; BG. 7%; CGH. 15%; C. 6½%; DC. 25%; I. Free; Ja. 12½%; M. 6½%; N. 7%; NF. 13%; NSW. Free; NZ. 15%; Q. 7½%; SA. from 8/ to £2 8s per doz, not enumerated 25%; (NT.) 10%; Tas. 10%; Tr. 4%; V. Hats, (except straw, chip, willow, tape, and braid, untrimmed) 25%, boys' youths' and men's, with calico or other foundation or frame, and covered with felt, plush, silk, merino, or other material (unless otherwise specified) £1 10s per dozen, known as dress hats £2 8s per dozen, boys' and youths' felt, in sizes up to and including 6½ 8/ per dozen, men's felt, and women's untrimmed felt, of any size, and pith hats 15/ per dozen, other kinds (except straw, chip, willow, tape, and braid, untrimmed) 25%, felt hood, pull-over hoods, and any article of felt prepared for the manufacture of hats 5/ per doz.; WA. 12½%.

Hemp.—See Linen.

Hides, Skins and Leather (Unwrought and Wrought), a v.—B. Hides and skins, raw free, other kinds 4%; BG. All kinds 7%; CGH. Boots, &c. 2/ to 8/ per doz pairs, with 10% a v in addition, other 15%; C. All kinds 6½%; DC. Boots, &c. 25%, leather 15% to 25%, harness and saddlery 30%; Hon. Per lb, according to quality 4½d to 1/, leather 4½d, wares 1/; I. All kinds free; Ja. Raw hides, pipes for conveying fluids, free, other kinds 12½%; M. All kinds 6½%; N. Hides and skins, raw and undressed, with a registration charge of 1/ per ton or 6d per package, free, leather and other kinds 7%; NF. Not tanned, curried, or dressed free, leather 15% a v; NSW. All kinds free; NZ. Boots, &c. 2/ to 12/ per doz pairs, leather, sole, 4/8 per cwt, other kinds 9/4, manufactures 15%; Q. Leather 37/4, boots and shoes, men's 22/ per dozen pairs, youths' 14, boys' 12/, women's 13/, girls 11/, small do. (Nos. 7 to 10) 8/; SA. Hides and skins, raw, free, boots and shoes from 11/6 to 33/ per doz. pairs, harness, saddlery made up, and leatherware, all kinds 25%; (NT.) Boots and shoes 10%, leather, patent, kid, &c., free, other 10%; Tas. Hides and skins, raw and unmanufactured free, leather and all goods manufactured therefrom, in whole or in part, including hides and skins dressed in any manner 10%; Tr. Leather manufactures, being boots, shoes, slippers and leggings of all kinds, harness and saddlery 4%; V. Boots and shoes 4/ to 33/ per doz pairs, leather 7½%, 10%, and 20%, wares 25%, Saddle-trees, riding £1 per doz, do. harness 10/ per doz, saddles, and harness and whips of any description 25% a v, gloves 20%; WA. Hose 5%, hides, raw, free, and apparatus for raising and distributing water 10%, all other 5%, saddlery and harness 20%.

Hops.—B. 4% a v; BG. 7% a v; CGH. 10% a v; C. free; DC. 3d lb; Hon. 4d lb; I. free; Ja. 12½% a v; M. 6½% a v; N. 7% a v; NF. 13% a v; NSW. 3d lb; NZ. 6d lb; Q. 6d lb; SA. 6d lb; (NT.) 3d lb; Tas. 2d lb; Tr. free; V. 6d lb; WA. 4d lb.

Horses.—B. Foals, horses belonging to equestrian companies and taken away with them, and race horses after the first importation, if drawback has not been claimed, free, other horses, under 13½ hands 10/ each, ditto of or above 13½ hands £2 each; BG. horses, stallions under 14½ hands £20 16s 8d each, all other horses £1 9s 2d each; CGH. free; C. free; DC. Horses brought into Canada temporarily for exhibition or competition for prizes, for improvement of stock imported into Manitoba and the North-West Territory by settlers, free, other 20% a v; I. free; Ja. 10/ each; M. Free; N. Free, with a registration charge; NF. 12/6 each; NSW. Free; NZ. Free; Q. Free; SA. Free; Tas. Free; Tr. £2 2s 6d each; V. 5/ each; WA. Free.

Hose.—See Hides, &c.

Hosiery.—See Cotton, &c.; also Indiarubber, &c.; also Linen, &c.; also Woven Manufactures.

Household Furniture, a v.—**B.** 4%; **BQ.** 7%; **CGH.** 25%; **C.** 6½%; **DC.** H. F. settlers, free, other, finished, or in parts, including mattresses, holsters, and pillows, caskets, and coffins 35%; **I.** Free; **Ja.** 12½%; **M.** 6½%; **N.** 7%; **NF.** H. F. settlers, free, manufactures of wood (except cabinet wares) 20%, other furniture 13%; **NSW.** Free; **NZ.** 25%; **Q.** Imported with and by passengers for use, free, other 7½%; **SA.** 25%; **(NT.)** 10%; **Tas.** Cabin furniture (passengers arriving in the Colony) free, other kinds 10%; **Tr.** Hardware 4%, furniture 4%; **V.** Furniture, including second-hand (except furniture up to £20 value, accompanying any passenger which has been in use, and is not imported for sale, free) 25%, springs, sofa, chair and other furniture 10%; **WA.** Cabin furniture (passengers arriving in the Colony) free, other 20%.

Indiarubber and Gutta Percha (Unwrought and Wrought), a v.—**B.** All kinds 4%; **BQ.** Electric lighting and telegraphic apparatus free, other kinds 7%; **CGH.** Goloshes 2/ per dozen pairs with 10% a v additional, other kinds (unmanufactured) free; **C.** All kinds 6½%; **DC.** Caoutchouc, unmanufactured and rubber, hard crude, in sheets, plain or moulded, gutta percha, crude, recovered rubber and rubber substitute, fillets of cotton and rubber, not exceeding 7 inches wide, when imported by and for the use of manufacturers of card clothing free, indiarubber vulcanised handles for knives and forks 10%; clothing of indiarubber or waterproofed with, 35%; other kinds 25%; **Hon.** per lb, manufactured 4½d; **Ja.** Pipes for conveying fluids free, other kinds 12½% a v; **M.** All kinds 6½% a v; **N.** Indiarubber, unmanufactured, with a registration charge of 1/ per ton or 6d per package, free, other kinds 7% a v; **NF.** All kinds 13% a v; **NSW.** All kinds free; **NZ.** Gutta percha manufactures not being wearing apparel, and not otherwise enumerated, boot elastic, rubber-cloth (carriage and coach builders') free, goloshes 2/6 per dozen pairs, apparel and ready-made clothing of all sorts 15% a v, floorcloth, haberdashery, hosiery, leather cloth bags and leather cloth 15% a v, other articles free; **Q.** All kinds 7½% a v; **SA.** Goloshes, indiarubber cushions, druggists' tubing 10% a v, other kinds free; **Tas.** Boot elastic and indiarubber sheeting for engine fittings free, other kinds 10% a v; **Tr.** waterproof articles (textiles and wearing apparel) 4% a v, other kinds free; **V.** Goloshes 4/ per dozen pairs, other kinds free; **WA.** Telegraphic instruments 10% a v, other kinds 5% a v; **B.** 4% a v; **BQ.** 7% a v; **CGH.** 15% a v; **C.** 6½% a v; **DC.** Indigo and paste, and extract of, free; **Ja.** 1/8s per cwt; **M.** 6½% a v; **N.** 7% a v; **NF.** Free; **NSW.** Blue 9/4 per cwt, other free; **NZ.** Blue 9/4 per cwt, other free; **Q.** Blue 9/4 per cwt, other 7½% a v; **SA.** Blue 9/4 per cwt, other 10% a v; **Tas.** Dye stuffs for manufacturing purposes free, other 10% a v; **Tr.** Free; **V.** Blue for washing 18.8 per cwt, other free; **WA.** 12½% a v.

Ink.—See Paper, &c.

Iron and Iron Wares (Plain and Galvanised, Pig, Bar, Rod, Plate, Sheet, and Hoop).—**B.** Hoops, bars and rods 7/5½ per ton, other 4% a v, machinery for cultivation or manufacture of sugar free; **BQ.** 10% a v; **CGH.** Bar free, rod 5% a v, other (except railway and telegraph materials free) 15% a v, agricultural implements (except Kafir hoes and picks) 5% a v, sheet iron (not corrugated) free; **C.** Railway and hoop free, pig 4/8½ per ton, bar and rod 7/6, plate and sheet 9/4½; **DC.** Wrought scrap iron and scrap steel, ferro-manganese, &c. 8/4 per ton, iron in pigs, iron kentledge &c. 16/8 per ton, in slabs, blooms, puddled bars, or other forms less finished than iron in bars, and more advanced than pig, except castings, 37/6 per ton, bar iron, rolled or hammered, 54/2 per ton, iron and steel wire galvanised or not, 25% a v, wire of spring steel 20% a v, boiler or other plate iron 54/2 per ton, sheet iron 12½% a v, hoop, band, scroll, or other iron 8in. or less in width, and not thinner than No. 20 gauge 54/2 per ton, ditto thinner than No. 20 gauge 12½% a v, railway fish plates 50/ per ton, rolled iron or steel beams 12½% a v, cast iron pipes 50/ per ton, provided the duty is not less than 35% a v, fire-engines, locomotives and other engines, boilers and machinery 30% a v, other iron and steel manufactures from 15% to 35% a v, iron or steel wire rope 23% a v; **Hon.** Per lb 4d, manufactures 1½d, medical instruments 4½d., **I.** Free; **Ja.** 12½% a v; **M.** 6½% a v; **N.** Pig, hoop and tram rails free, with registration charge of 1/ per ton or 6d per package;

Iron and Iron Wares—*continued*.

NF. Boiler and ship plates and pig free, other 8% a v; NSW. Corrugated bars or sheets 40/ per ton, other free; NZ. Free; Q. Free; SA. Boilers 25%, iron or steel columns, girders (rolled or riveted), pipes, tubes, nails and screws 62 per ton; (NT.) Iron and ironwares free; Tas. Free; Tr. 4% a v; V. Free; WA. Iron and steel wire, standards and staples for fencing 10/ a ton, iron gates, hurdles, and wrought bars for fencing 1/ per cwt, iron and steel, unworked, bar, sheet, rod, plate and hoop iron, pig iron free, other 5%.

Galvanised and other kinds.—B. Nails 1/1½ per cwt, other 8% a v; BG. Part free, part 7% a v; CGH. Galvanised 15% a v; anchors and ship cables free, fencing wire and agricultural implements 10% a v; other 15% a v; C. Galvanised 28/1½ per ton, angle and Swedish bar 9/4½, corrugated iron 13/1½, nails and rivets 23/7½, other 5% a v; DC. Part free, other various rates from 15% to 35% a v; I. Free; Ja. Part free, part 12½% a v; M. 6½% a v; N. Galvanised 7% a v, fencing and agricultural implements free, with a registration charge of 1/ per ton or 6d per package, all materials for bridges, railways, or telegraphs free; NF. Part free, other 8% to 20% a v; NSW. Galvanised bars or sheets 40/ per ton, manufactures 60/, other kinds—wire 20/, nails 40/, other free; NZ. Galvanised corrugated sheet 40/ per ton, tiles and rivets 6½, other 2/ per cwt, other kinds—bolts, pipes, rails, wire-netting, &c. free, fencing-wire 1/ per cwt, other 15% a v, or 2/ to 4/ per cwt; Q. Galvanised corrugated iron (pig, piping, and sheet) 2/ per cwt, iron ware 7½% a v, other kinds—corrugated, wire, nails, castings 3/ per cwt, iron tanks 8/ each, furniture springs 5%, boiler plates and tubes, buckles, cart and carriage springs, malleable iron and copper piping, steel rails, tools, portable engines, and machinery (except motive power) free; SA. Galvanised sheet (plain) and wire free, corrugated 30/ per ton, manufactures 25%, (NT.) 15% a v, other kinds—rails, tanks, wire, fencing, &c., free, other 10% or 15% a v; Tas. Galvanised wire rope free, other 5% a v; other kinds—railway rails, chain cables, engine fittings, &c. free, fencing 9d per cwt, nails 2/6, castings 1/6, bolts and nuts 2/6, harrows, horse-hoes, horse-rakes, ploughs, and scarifiers 5% a v, iron bar-rod, plates, and machinery free, other 10% a v; Tr. 4% a v; V. Galvanised sheet and wire free, other 25% a v, other kinds—wire, railway rails, pipes (wrought), saddlers' ironmongery free, nails 3/ per cwt, horse shoe nails 12/ per cwt, pipes (cast) 2/, other sorts 25% a v; WA. Galvanised, sheet, plain, free, other kinds—fencing-wire 1/ per cwt, nails, pipes, wire netting 5% a v, other 10% or 12½% a v.

Machinery.—B. 8% a v; BG. Free; CGH. Agricultural, mining and sawing free, other 15% a v; C. Free; DC. Portable machines, 35% a v, other 25% a v; I. Free; Ja. Free; M. For manufacture or improvement of produce of the colony free, other 6½% a v; N. Part free, with registration charge of 1/ per ton or 6d per package, part 7% a v; NF. Agricultural and other machinery free, parts of machinery and propellers 10% a v; NSW. Free; NZ. Free; Q. Free; SA. Weaving, flour-milling, paper-making free, engines and parts (ex. gas, portable, and traction), icemaking, cooling, and punching machines 25% a v; other part 20% a v, part 15% a v, (NT.) Weaving, flour-milling, paper-making free, other part free, part 5/; Tas. Part free, part 5% a v; Tr. For manufacture of produce free, other 4% a v; V. Agricultural, spinning and weaving free, other part free, part and mining 25% a v; WA. For boring for water or coal free, other 5% a v.

Iron Wares.—See Iron, &c.

Jams, &c.—See Confectionery.

Jewellery.—See Gold and Silver Wares.

Jute.—See Linen, Hemp and Jute.

Kerosine.—See Oils.

Lamps.—See Carriages.

Lard.—Tr. 3/

Lead and Leadwares.—B. Lead, old free, sheet and pipe 1/1½ per cwt, other kinds 4% a v; BG. Printing type and material and pipes for gas works free, shot 9/4 per cwt, other kinds 7% a v; CGH. Printers' materials free, other kinds, unwrought and wrought 15% a v; C. Printing materials free, lead, sheet, pipe, pig, and shot 11½d per cwt, other kinds 6½% a v; DC. Lead ores and litharge free, lead, old, scrap pig 1/10½ per cwt, bar, block and sheet 2/3½ per cwt, type and

Lead and Leadwares—continued.

stereotypes and electrotypes for commercial banks and advertisements 20% a v; buttons of all kinds 25% a v, stereotypes and electrotypes of standard books and type metal 10% a v, lead, white and red, and orange and mineral dry, and white lead in pulp, not mixed with oil 5% a v, lead, pipe, shot, all other manufactures of lead 30% a v; **Mon.** Per lb 1½d, manufactures 4½d; **I.** All kinds free; **JA.** Pipes for conveying fluids free, other kinds 12½% a v; **M.** All kinds 6½% a v; **N.** Printing type and tea lead, with a registration charge of 1/ per ton or 6d per package free, other kinds 7% a v; **NF.** Printing type and materials free, solder 8% a v, other kinds 13% a v; **NSW.** Shot 5/ per cwt, other kinds free; **NZ.** Pig, bar, or sheet lead, building materials not otherwise specified, gas pipes and machinery, and all material specially imported for the construction of gas works, paints, wet or dry, unmixed, printing type or materials, pumps and apparatus for raising water, water-pipes not otherwise described, and all material specially imported for the construction of water works, free, shot 10/ per cwt, lead and composition piping 3/6 per cwt, paints, mixed 2/ per cwt, other kinds 15% a v; **Q.** Lead, sheet and pig free, white and red 2/ per cwt, shot 2/ per cwt, other kinds 7½% a v; **SA.** Window sashes 4/ and 6/ per pair, (NT-) 2/6, lead, pipe and sheet, also shot 2/6 per cwt, red and white lead 2/ per cwt, other kinds free; **Tas.** Lead ore, pig lead, printing type and materials free, shot 9/4 per cwt, white and red lead and lead paint 4/8 per cwt lead milled, sheet or piping 2/6 per cwt, other kinds 10% a v; **Tr.** All kinds 4% a v; **V.** Ore and pig free, lead, sheet, and piping 2/6 per cwt, shot 9/4 per cwt, leadware 25% a v; **WA.** Lead, pig, sheet, and piping 2/6 per cwt, shot 5/ per cwt, brewery and distillery plant, type, 5% a v, other kinds 12½% a v.

Leather and Leather Wares.—See Hides and Skins.

Leggings.—See Hides, &c.

Lime.—See Bleaching Materials; also Cement.

Linen, Hemp and Jute Yarns and Thread.—See Yarns and Thread (Linen, Hempen and Jute).

Linen, Hemp and Jute.—See Woven Manufactures.

Machinery.—See Brass, Copper, &c., also Earthenware, also Grindstones, also Iron, &c., also Lead, &c., also Zinc, &c.

Magazines.—See Paper, &c.

Manures.—See Alkali, also Oil Cake.

Matches, Lucifer and Wax.—**B.** Boxes containing 100 matches each, and so in proportion, 1/ per gross; **BG.** Matches, per gross of boxes 60 cts.; **CGH.** In boxes of not more than 100, and so in proportion for larger boxes, 2/ per gross; **C.** 6½% a v; **DC.** 20% a v; **I.** Free; **JA.** Boxes containing 100 matches each, and so in proportion, 5/ per gross; **M.** 6½% a v; **N.** In boxes, &c., of not more than 100, 2/ per gross, other 7% a v; **NF.** 13% a v; **NSW.** Free; **NZ.** 25% a v; **Q.** 7½% a v; **SA.** 1/ per gross (except safety matches or part thereof); (NT-) Free; **Tas.** Wax vestas 3/ per cubic foot, lucifer matches 1/ ditto; **Tr.** Matches, lucifer-boxes, or packages of not more than 120 matches and in proportion above that number, 2/6 per gross; **V.** Wooden matches in boxes containing up to 100 matches 6d per gross, in boxes containing from 100 to 200 matches, 1/ per gross (and at the same rate for larger boxes), wax vestas in metal boxes (not otherwise specified) containing up to 100 matches, 1/3 per gross, in metal boxes (not otherwise specified) containing up to 200 matches, 2/6 per gross (and at the same rate for each additional 100 vestas), in paper, or small round tin, or other boxes containing up to 200 matches, 2/ per gross (and at the same rate for each additional 100 vestas); **WA.** 12½% a v.

Mattresses.—See Household Furniture.

Medals.—See Gold and Silver Ware.

Metal Sheathing.—See Brass, Copper, &c.

Methylated Spirit.—See Spirits.

Mills.—See Iron, &c.

Millinery.—See Linen, &c., also Woven Manufactures.

Millstones.—See Grindstones.

Mining Machinery.—See Iron, &c. (Machinery).

Mirrors.—See Glass.

Molasses.—See Sugar.

Musical Instruments.—See Brass, Copper, &c.

Nails.—See Brass, Copper, &c., also Iron &c.

Newspapers.—See Paper, &c.

Nitrates.—See Alkali, also Saltpetre.

Oil Cake and Meal.—B. Oil meal and cake 5½d cwt; BG. Manure free, other 7% a v; CGH. 15% a v; C. Copperah and castor-seed Poonac free, Poonac 5½d cwt; DC. Free; Hon. Per lb, oilcake and meal ½d; I. Free; JA. Free; M. Copperah, or Poonac, free, other kinds 6¼% a v; N. 7% a v; NF. 13% a v; NSW. Free; NZ. Free; Q. As manure, free, other 7½% a v; SA. Free; Tas. Oil cake, linseed free, other 10% a v; Tr. Oil meal 1/1½ per cwt, oil cake free; V. Free; WA. 12½% a v.

Oil Cloth.—See Linen, &c.

Oil Paintings.—See Pictures.

Oils, per gall.—B. Kerosine 2½d, other kinds 4% a v; BG. Oils giving off inflammable vapour at 73° F. per gall 2/6, gasoline and all other (except essential, medicinal, perfumed and castor oil) per gall 1/0½; CGH. Fish oils (raw), produce of Africa, free, chemical, essential, perfumed and castor 15%, other 6d gall; C. Kerosine, linseed and vegetable 6¼% a v, other free; DC. Crude, palm and cocoanut free, mineral 3½d, other 10% or 25%; Hon. Per lb, animal, mineral and vegetable ½d; I. Free; JA. 9d; M. 6¼% a v; N. 3d; NF. Palm 5% a v, kerosine 3d per gall, other 13% a v; NSW. Animal, black, cocoanut and sperm free, other 6d; NZ. Fish, olive and palm free, vegetable and perfumed 15%, other 6d; Q. Castor, Chinese cod liver, colza, neatsfoot, linseed, and vegetable oils 1/ per gallon, mineral oils and turpentine 6d; SA. Sperm, seal and cod free, kerosine 3d, other 6d, salad oil 2/ per gall, (NT.) 3/ doz qts; Tas. Medicinal, fish and perfumed 10% a v, kerosine 1/, other 1/; Tr. 1/; V. Mineral, colza, castor, and olive 6d, other free; WA. 6d.

Olive Oil.—See Oils.

Omnibuses.—See Carriages.

Paints.—See Barytes, also Lead, &c.

Paper and Stationery.—B. 4% a v; BG. Printing free, other 7%; CGH. Printing paper free, other 15%; C. Stationery 6¼%, paper free; DC. 25% to 35%; Hon. Books, maps, engravings free, paper, manufactures, according to quality, per lb, 1½d, 3d, 4½d, 9½d; I. Free; JA. 12½%; M. 6¼%; N. 7%; NF. 13%, printing and sheathing paper free; NSW. Stationery and printing paper free, wrapping paper 3/4, writing paper 9/4 cwt; NZ. Paper, printing and writing (uncut) free, wrapping 2/ or 2/6 cwt, other and stationery 15%; Q. Paper bags 5/ per cwt, printed paper 7/6, paper of demy size and above free; SA. Paper bags, printed 15/ per cwt; not printed 10/ per cwt, ink, writing and printing paper free, wrapping, blotting and tissue paper 3/4 cwt, stationery, part 25%, (NT.) 10%, part free; Tas. Stationery 10%, ink free, paper juncut 5%, other 10%; Tr. Creosote 4%, petroleum, cocoanut, and other kinds 1/ per gall; WA. 12½%.

Paper-making Machines.—See Iron, &c. (machinery).

Parasols.—See Umbrellas and Parasols.

Patent Fuel.—See Coal.

Perambulators.—See Carriages.

Percussion Caps.—See Brass and Copper.

Perfumery.—B. Soap 1/4½ per cwt, other 4% a v; BG. perfumed spirits, \$2.50 per gallon; CGH. Spirits, perfumed 15/ per gallon other 15% a v; C. 6¼% a v; DC. Perfumery, including toilet preparations, viz, musk in pods or grain and attar of roses, free, pomades (French) or flower odours preserved in fat or oil, in tins not under 10 lbs, 15% a v; hair oils, tooth and other powders and washes, pomatums, pastes, soap, perfumed or toilet, and all other perfumed preparations used for the hair, mouth or skin 30% a v, Cologne water and all other perfumed spirits in bottles or flasks not weighing more than 4 ozs each, 40% a v, Cologne water and perfumed spirits in bottles, packages, &c., of more than 4 ozs, 7/11 per gallon with 30% a v, essential oils for manufacturing purposes 20% a v; I. Perfumed spirits 8/ proof gallon,* other perfumery free; JA. All spirituous compounds 10/ per gallon, soap 6/2 per cwt, other perfumery 12½% a v; M. 6¼% a v; N. Spirits, perfumed 9/ per proof gallon, other perfumery 7% a v; NF. Perfumed spirits 6/8 per proof gallon,* other 13% a v; NSW. Perfumed spirits 12/ per proof gallon, other free; NZ. Essential oils free, toilet vinegar 14/ per gallon, perfumed spirits and Cologne water £1 1s per gallon, perfumed oils 15% a v, perfume

Perfumery—continued.

and toilet preparations not otherwise enumerated, including soap, scented and fancy 25% a v; Q. Perfumed spirits 10/ per gallon, other 7½% a v; SA. 25% a v; Tas. Soap, perfumed and fancy £1 2/ per cwt, spirits, perfumed 18/ per proof gallon, other perfumery 10% a v; Tr. Perfumed spirits 8/ per gallon, other perfumery free; V. Soap, perfumed and toilet, 4d per lb, spirits, perfumed £1 4/ per gallon, perfumery 10% a v; WA. 20% a v.

Petroleum.—See Oils. * No allowance for under proof spirits.

Phosphor Bronze.—See Brass, Copper, &c.

Photographic Apparatus.—See Brass, Copper, &c., also Glass.

Pianos, a v.—B. 4%; BG. 7%; CGH. 15%; C. Free; DC. Pianofortes from £5 to £10, with 20% a v in addition; I. Free; Ja. 12½%; M. Pianos for professional use, the property of a person coming to the Colony, and if arriving within three months before or after the proprietor free, other 6½%; N. 7%; NF. 13%; NSW. Free; NZ. 15%; Q. 7½%; SA. 10%; Tas. 10%; Tr. Free; V. 25%; WA. 12½%.

Pickles and Sauces.—B. 4% a v; BG. 7% a v; CGH. 15% a v; C. 6½% a v; DC. Pickles from 1/ to 1/8 per gall, sauces and catsups in bottle 1/8 per gall and 20% a v; I. Free; Ja. 12½% a v; M. 6½% a v; N. Pickles 8/4 100 pints, sauces 6% a v; NF. 13% a v; NSW. 6d per dozen pints; NZ. Pickles 9d per dozen pints, sauces 3/ per dozen pints; Q. 1/6 per dozen reputed pints or lbs; SA. Reputed pints 1/ per dozen; Tas. Pickles 3/ per doz quarts, 2/ per dozen pints, sauces in bottles 4/ per doz quarts, 3/ per dozen pints; Tr. 4% a v; V. Pickles (the bottles are also dutiable) per dozen pints 1/9, sauces 20% a v; WA. 12½% a v.

Pictures.—B. Free; BG. 7% a v; CGH. 15% a v; C. Free; DC. Paintings in oil or water colours or copies of old masters by artists of well-known merit, free, other pictures 20% a v; Hon. Per lb, bruto weight 5/; I. Free; Ja. Free; M. Free; N. 7% a v; NF. When not intended for sale free, other 13% a v; NSW. Free; NZ. 15% a v; Q. 7½% a v; SA. Free; Tas. Free; Tr. Free; V. Free; WA. 10% a v.

Pig Iron.—See Iron, &c.

Pillows.—See Household Furniture.

Pipes.—See Brass, Copper, &c.; also Hides, &c.; also Indiarubber, &c.; also Iron, &c.; also Lead, &c.; also Zinc, &c.

Pitch.—B. Free; BG. Tar and pitch 2/1 per barrel; CGH. 15% a v; C. 6½% a v; DC. Pine and Burgundy free, coal pitch, and tar 10% a v; Hon. ½d per lb; I. Free; Ja. 12½% a v; M. 6½% a v; N. 7% a v; NF. 8% a v; NSW. Free; NZ. Free; Q. 7½% a v; SA. Free; Tas. Free; Tr. Free; V. Free; WA. 5% a v.

Plaster.—See Cement.

Plate.—See Gold and Silver Wares.

Plate Glass.—See Glass.

Ploughs.—See Iron, &c. (Machinery).

Porcelain.—See Earthenware and Porcelain.

Pork, Salted, per cwt.—B. 5/7½; BG. Pork, pickled, \$1.50 per barrel of 200 lbs; CGH. 9/4; C. 2/4; DC. 4/8; I. Free; Ja. 15/ per barrel of 200 lbs; M. 2/0½; N. 9/4; NF. 2/4; NSW. Free; NZ. Free; Q. 7½% a v; SA. Pickled 28/ (NT.) Pickled 10% a v, other 9/4 per cwt; Tas. 10% a v; Tr. Free; V. 5/; WA. 10% a v.

Portable Engines.—See Iron, &c. (Machinery).

Printers' Materials.—See Lead, &c.

Printing Materials.—See Paper, &c.

Propellers.—See Brass, Copper, &c.

Pumps.—See Brass, Copper, &c.; also Iron, &c.; also Lead, &c.

Rails.—See Iron, &c.

Railway Materials.—See Iron, &c.

Reaping Machinery.—See Iron, &c. (Machinery).

Ribbons.—See Woven Manufactures.

Rice.—See Corn.

Rings.—See Gold and Silver Ware.

Rivets.—See Iron, &c.

Roofing Slates.—B. 4% a v; BG. 4/2 per 1,000; CGH. 15% a v; C. Free; DC. Black or blue 3/4 per square, red, green, or other colours 4/2 ditto, all other 25% a v; I. Free; Ja. Free; M. Free; N. Free, with a registration charge of 1/ per ton; NF. 13% a v; NSW. Free; NZ. Free; Q. 7½% a v; SA. Free; Tas. 10% a v; Tr. Free; V. Free; WA. 12½% a v.

Rosin.—B. Free; BG. 2/1 per barrel; CGH. 5% a v; C. Free; DC. Free; Hon. 4d per lb; I. Free; Ja. Free; M. 6½% a v; N. 7% a v; NF. 8% a v; NSW. Free; NZ. Free; Q. 7½% a v; SA. Free; Tas. Free; Tr. Free; V. Free; WA. 5% a v.

Rubber.—See Indiarubber.

Rum.—See Spirits.

Saddlery and Harness.—See Hides and Skins.

Sail Cloth.—See Linen, &c.

Sails, &c.—See Cottons, &c.

Salt Ammoniac.—B. 4% a v; BG. 7% a v; CGH. 15% a v; C. 6½% a v; DC. Free; I. Free; Ja. 12½% a v; M. Ammoniacal liquors and salts free; N. 7% a v; NF. 13% a v; NSW. Free; NZ. As drugs and druggists' sundries 15% a v, other free; Q. 7½% a v; SA. 10% a v; Tas. 10% a v; Tr. Free; V. Ammonia, carbonate and liquid 2d per lb, other free; WA. 12½% a v.

Salt.—B. Free; BG. Free; CGH. In bulk or bags of not less than 100 lbs 3½d per cwt, all other free; C. 4/ per cwt; DC. In bulk 3d per 100 lbs, other 7½d, but if imported from United Kingdom, or any British possession, or for use in the fisheries, free; I. Imported into British Burma 2½d per cwt, other parts of British India 3½d per cwt; Ja. Rock salt free, other 1/1½ per cwt; M. 6½% a v; N. Salt (with a registration charge of 1/ per ton) free; NF. In bulk 10d per ton; NSW. 1/ per cwt; NZ. Free; Q. Free; SA. Rock free, other 1/ per cwt; Tas. 1/6 per cwt; Tr. Free; V. Rock free, other 1/ per cwt; WA. Rock free, other 1/ per cwt.

Saltpetre.—B. 4% a v; BG. 7% a v; CGH. 15% a v; C. Saltpetre refuse for manure free, other 1½d per cwt; DC. Nitrate of soda or cubic nitre free, saltpetre 20% a v; I. Free; Ja. 12½% a v; M. Nitrate of potash and soda free; N. 7% a v; NF. 13% a v; NSW. 1/ per cwt; NZ. Free; Q. 4/ per cwt; SA. 25/ per ton, (NT.) 1/ per cwt; Tas. 1/6 per cwt; Tr. Free; V. Free; WA. 12½% a v.

Sauces.—See Pickles and Sauces.

Sawing Machinery.—See Iron, &c. (Machinery).

Sewing Machines.—See Iron and Steel.

Shawls.—See Cottons, &c.

Ships' Cables.—See Iron, &c.

Ships' Composition.—See Brass, Copper, &c.

Shot.—See Lead, &c.

Silk Yarns and Thread.—See Yarns and Thread (Silk).

Silk Woven Manufactures.—See Woven Manufactures (Silk).

Silver.—See Gold and Silver Wares.

Silver Leaf.—See Gold and Silver Wares.

Silver Wares.—See Gold and Silver Wares.

Slippers.—See Hides, &c.

Soaps (see also Perfumery).—B. 1/4 per cwt; BG. Common 2/4 per cwt, perfumed 7% a v; CGH. Common brown, blue, yellow, or mottled 9d per 100 lbs, other 15% a v; C. 6½% a v; DC. Common brown or yellow, not perfumed 7/ per cwt, castile and white 9/4 per cwt, perfumed or toilet 30% a v, other 20% a v; Hon. Common 1d per lb, scented 4½d; I. Free; Ja. 6½ per cwt; M. 6½% a v; N. 7% a v; NF. 13% a v; NSW. Free; NZ. Common 3/6 per cwt, scented and fancy 25% a v, powder and washing powder 15% a v; Q. 10/ per cwt; SA. Fancy 37/4 per cwt, other 9/4 per cwt, extract of soap and washing powders 18/8, (NT.) Fancy 10% a v, other 1/ per cwt; Tas. Perfumed or fancy 4½ per cwt, other 9/4 per cwt; Tr. 2/1; V. Perfumed and toilet 17s 4d per cwt, other 18/8 per cwt; WA. Toilet 12½% a v, other 3/ per cwt.

Soda.—See Alkali.

Solder.—See Lead, &c.

Sowing Machines.—See Iron, &c. (Machinery).

Sperm Oil.—See Oils.

Spinning Machines.—See Iron, &c. (Machinery).

Spirits (see also Perfumery) per proof gall.—B. 4/ and 6/ with 25% additional on duty; BG. 10/5; CGH. 3d to 6d per gall; C. 8/5½; DC. Brandy 6/0½, perfumed 24/, methylated 3/ per gall, other 5/6½ to 7/11; Hon. Bruto weight, 3d per lb; I. 8/*; Ja. 10/ (irrespective of strength); M. 24/*; N. 9/*; NF. From 4/9 to 10/; NSW. 14/; NZ. 14/; Q. 12/*, perfumed 20/, methylated 5/; SA. 14/, (NT.) 12s; Tas. Spirits

* No allowance for underproof.

Spirits—continued.

of any strength 15^l, methylated 3^l, perfumed £1 4^l; Tr. Rum 6^l/6, other (per liquid gallon) 8^l; V. 12^l*, methylated (per liquid gallon) 1^l/6; WA. 15^l*, methylated and other spirits rendered unfit for human consumption 1^l per gall, spirits of wine (rectified, not medicinal) 20^l per gall.

Springs.—See Brass, Copper, &c., also Carriages.

Starch.—B. 1/14 per cwt; BG. 7% a v; CGH. 15% a v; C. 6 1/2% a v; DC. Starch and all preparations having the qualities of starch 9/4 per cwt; Hon. 4d per lb; I. Free; Ja. 12 1/2% a v; M. 6 1/2% a v; N. 7% a v; NF. 13% a v; NSW. 6/4 per cwt; NZ. 3^l per cwt; Q. 9/4 per cwt; SA. 18/8 per cwt; NT. 9/4 per cwt; Tas. 9/4 per cwt; Tr. Free; V. 18/8 per cwt; WA. 12 1/2% a v.

Stationery.—See Paper, &c.

Stereotypes.—See Lead, &c.

Stoneware.—See Earthenware.

Straw Plaiting for Hats, a v.—B. 4%; BG. 7%; CGH. 15%; C. 6 1/2%; DC. Free; I. Free; Ja. 12 1/2%; M. 6 1/2%; N. 7%; NF. 13%; NSW. Free; NZ. Free; Q. 7 1/2%; SA. Free; Tas. 10%; Tr. Free; V. 25%; WA. 12 1/2%.

Sugar.—B. Raw free, refined, vacuum, crystallised free other 11/2 1/2 per cwt; BG. Raw and refined 18/8 per cwt; CGH. 3/11 per 100 lbs; C. Raw 1/4 1/2 to 3/3 1/2 per cwt, refined 5/7 1/2; DC. Raw, if for refining, 4/8 per cwt, 70 deg. polariscope test, and 13d 100 lbs for each degree above 70, not for refining 4/8 per cwt, with 30% a v. refined sugar above No. 14, Dutch standard in colour, and all refined sugar 7^l per cwt, with 35% a v. Note.—These rates apply to sugars imported direct from country of production; on sugars not so imported an additional amount is charged of 7 1/2% of the whole duty otherwise payable. Hon. Sugar and molasses 4d per lb; I. Free; Ja. Raw 11/2 1/2, refined 18/8 per cwt; M. Raw 6 1/2% a v, refined 4/5 1/2 per cwt; N. Raw 6/6 per cwt, refined 6% a v; NF. Raw 12/6 per cwt, refined 18/9, bastard 14/7; NSW. Raw 5^l, refined 6/8 per cwt; NZ. Raw or refined 4/8 per cwt; Q. Raw 5^l, refined 6/8 per cwt; SA. Sugar free, molasses and treacle 3^l per cwt, (NT.) Free; Tas. Raw 6^l per cwt, refined, loaf and crushed 9/4, other 6^l per cwt; Tr. Raw or refined 10^l per cwt; V. Sugar the produce of the sugar cane 3^l, do. bonded on and after the 27th July, 1887, and refined in Victoria in a bonded warehouse under regulations framed by the Governor 2^l per cwt, the produce of beetroot and all other sugar 6^l per cwt, molasses (except unrefined molasses) 3^l per cwt, sugar candy, 2d per lb; WA. Sugar, molasses and treacle 4^l per cwt.

Sulphur.—See Brimstone.

Syrups.—See Sugar.

Tallow.—See Grease.

Tar.—See Pitch.

Tarpaulins.—See Linen, &c.

Tea.—B. Per lb. 3d; BG. 6d; CGH. 1d; O. 5 1/2d; DC. From United States 10% a v, other free; I. Free; Ja. 1^l; M. 1d; N. 7d; NF. 3d per lb, with 20% a v; NSW. 3d; NZ. 4d; Q. 6d; SA. 3d (6d per lb in Northern Territory); Tas. 3d; Tr. 6d; V. 3d; WA. 4d.

Telegraph Materials and Apparatus.—See Brass, Copper, &c., also Earthenware, also Glass, also Indiarubber.

Tents.—See Cottons, &c.; also Linen, &c.

Threads.—See Yarns.

Tiles.—See Earthenware, also Zinc, &c.

Timber.—Tr. Sawn or hewn 8/3 per 1,000 ft super, staves 12^l per 1,000, wood hoops 3^l per 1,000.

Tin and Tin Wares.—B. All kinds 4% a v; BG. All kinds 7% a v; CGH. Plate or sheet 5% a v, other 15% a v; C. Tin, cake or slab 11 1/2d per cwt, tin plates 1/4 1/2 per cwt, all other 6 1/2% a v; DC. Tin ore, blocks, pigs, bars, plates, and sheets, and tin foil free, tin ware, stamped and japanned ware, and all manufactures of tin not otherwise specified 25% a v, babbitt metal 10% a v, buttons of all kinds 25% a v, tin or tinned cans or packages containing fish admitted free under any treaty 4d each quart; Hon. 4d per lb; I. All kinds free; Ja. Stills, and parts of, free, other kinds 12 1/2% a v; M. All kinds 6 1/2% a v; N. Tin ore and tin plates with registration charge of 1^l per ton, or 6d per package, free, other kinds 7% a v; NF. Sheet and block tin, and solder 10% a v, other kinds 13% a v; NSW. All kinds free; NZ. Tin,

* No allowance for underproof.

Tin and Tin Wares—continued.

pig, bar, sheet, foil, and tinsmiths' fittings free, tinware 15% a v; Q. Tin plates and block tin free, other kinds 7½% a v; SA. Tubing 2/6 per cwt, tin ware and japanned ware, 25% (NT.) 10% a v, other kinds, unwrought and wrought, free; Tas. Tin ores unmanufactured and plates free, other kinds 10% a v; Tr. Tin and tin ware 4% a v; V. Tin, block, foil, and plate free, tin ware and tinned ware 25% a v; WA. Tin block, plate, and foil 5% a v, all other 20% a v.

Tissues.—See Woven Manufactures.

Tobacco (Unmanufactured) per lb.—B. 1/; BG. 1/3 to 1/10½; CGH. 6d; C. 2 7/10d; DC. Free; Hon. 1/8; I. Free; Ja. 6d; M. 1/5; N. 6d; NF. 10d; NSW. For manufacture in the Colony 1/10, otherwise 3/10, unmanufactured 1/6, cigars 5/10, cigarettes 6/10; NZ. For manufacture in the Colony 2/10, otherwise 3/6; Q. 3/10; SA. 1/7½, snuff 6/10 (NT.) 1/10; Tas. 2/10; Tr. 9d; V. 1/10; WA. 1/10, for sheepwash 3d.

Tobacco (Manufactured), per lb.—B. 1/6; BG. 1/10½; CGH. 2/10; C. 5½d; DC. 10d, with 12½% a v; I. Free; Ja. 1/10; M. 1/9½; N. 2/10; NF. 10d, with 5% a v; NSW. 3/10; NZ. 3/6; Q. cigars 5/6, cigarettes 6/10; SA. 2/9 (NT.) 2/10; Tas. cigars and cigarettes 6/10, snuff 9/10; Tr. 1/10; V. 3/10; WA. 3/10.

Toilet Preparations.—See Perfumery.

Toys, a v.—B. 4%; BG. 7%; CGH. 15%; C. 6½%; DC. Manufactures of wood, indiarubber, gutta-percha, and tin 25%, manufactures of brass, copper, and lead 30%, other toys, rate according to material of chief value; I. Free; Ja. 12½%; M. 6½d; N. 7%; NF. Manufactures of wood 20%, other 13%; NSW. Free; NZ. 15%; Q. 7½%; SA. 10%; Tas. 10%; Tr. Free; V. Free; WA. 12½%.

Tubing.—See Brass, Copper, &c.; also Indiarubber, &c.

Turpentine.—B. 4% a v; BG. crude 2/1 per gallon, spirits of, 9d per gallon; CGH. 1½d per gallon; C. Free; DC. Crude free, spirits 10% a v; I. Free; Ja. 9d per gallon; M. 6½% a v; N. Imported in vessels of not less than half a gallon 3d per gallon, other 7%; NF. Crude 8% a v, other 13% a v; NSW. 1/ per gallon; NZ. 6d per gallon; Q. 6d per gallon; SA. 6d per gallon; Tas. 1/ per gallon; Tr. 1/ per gallon; V. Free; WA. 6d per gallon.

Twine.—See Cordage; also Yarns.**Type.**—See Lead, &c.

Umbrellas and Parasols.—B. 4% a v; BG. 7% a v; CGH. 15% a v; C. 6½% a v; DC. Umbrellas and parasols, and sunshades of all kinds and materials 25% a v; I. Free; Ja. 12½% a v; M. 6½% a v; N. 7% a v; NF. 13% a v; NSW. Free; NZ. 15% a v; Q. 7½% a v; SA. 20%, parts (except covers) free; NT. 10% a v; Tas. 10% a v; Tr. 4% a v; V. Parasols and sunshades (plain) up to 18½ inches in length of ribs, including covers made up wholly or in part of cotton, woollen or other material not otherwise specified 6d each, umbrellas over 18½ inches, fancy parasols under 18½ inches in length of ribs, including covers made up wholly or in part of cotton, woollen, or other materials not otherwise specified 1/ each, umbrellas over 18½ inches in length of ribs, of silk, of silk mixtures, and parasols and sunshades of all sizes of similar materials, including covers made up wholly or in part 2/6 each, all minor articles of mixed or undescribed materials used in the making up of umbrellas, &c., published in the Government Gazette, free; WA. 12½% a v.

Valves.—See Brass, Copper, &c.

Vinegar.—B. 4% a v; BG. 7% a v; CGH. 1½d per gallon; C. Acids free, other 6½% a v; DC. Vinegar 7½d per gallon, acetic acid 1/0½ per gallon; I. Free; Ja. 12½% a v; M. 6½% a v; N. 7% a v; NF. 7½d per gallon; NSW. 6d per gallon; NZ. 6d per gallon; Q. In wood 9d per gallon, in bottle 1/ per gallon; SA. acetic acid containing not more than 33% of acidity 2/ per gallon, every extra 10% or part 8d per gallon, vinegar containing not more than 5% acidity 9d per gallon, for extra 1% or part 2d per gallon, (NT.) 9d per gallon; Tas. 6d per gallon; Tr. Free; V. Vinegar (not being crude vinegar, aromatic or raspberry free) 6d per gallon, acetic acid and extract of vinegar 1/8s per cwt; WA. 6d per gallon.

Wagons.—See Carriages.**Watches.**—See Clocks and Watches.**Waterproofing.**—See Indiarubber, &c.

Weaving Machines.—See Iron, &c. (Machinery).

Wheat.—See Corn.

Wheels.—See Carriages.

Wheelbarrows.—See Carriages.

Window Sashes.—See Zinc, &c.

Wines.—**B.** 9d per gallon in wood, in bottle, sparkling 2/, other 9d per gallon, with, in each case, 25% additional on duty; **BG.** Wines not exceeding 8/4 in value, in wood, and containing less than 26% proof spirit 2/1 per gallon, bottled 4/2 per dozen quarts, 2/1 per dozen pints; **CGH.** In wood 6d per gallon, in bottle 1/ per dozen quarts; **C.** In wood, claret 11d, other 1/10d per gallon, in bottle, claret 4/8, other 5/7½ or 7/6 per dozen quarts; **DC.** In wood 1/0½ to 2/0½ per gallon with 30% a v (if containing more than 40% of spirit, rated as spirit), in bottle, sparkling 12/6 per dozen quarts, with 30% a v, other as in wood; **I.** In wood, sparkling 2/, other 5/ per gallon, in bottle, sparkling 4/, other 10/ per dozen quarts; **Ja.** In wood 2/6 per gallon, in bottle 5/ per dozen quarts; **M.** Wine in barrel 2/6 to 21/6 per Maltese barrel according to strength, in bottles or jars 3/ per doz; **N.** 3/ and 6/ ditto; **NF.** Champagne 12/6 per gallon, claret 1/8, hock, Burgundy, and light Rhenish 3/6, Malaga and Montilla costing at port of shipment 3/4 per gallon, and any other above that price 4/2 and 12½% a v, ditto costing under 3/4 per gallon 1/5½, port and Madeira 6/8, sherry and Manzanillo 4/2, Spanish, red Denia, Sicilian, Figueira, red Lisbon, Cape and Lisbon common 1/5½, all other 4/2 and 12½% a v; **NSW.** In wood 5/ per gallon, in bottle, sparkling 10/, other 5/ per dozen quarts; **NZ.** In wood 4/6 or 5/6 per gallon, in bottle, sparkling 13/, other 9/ or 11/ per dozen quarts; **Q.** Sparkling 10/ per gall, other sorts 6/; **SA.** Sparkling 10/, (**NF.**) 6/, and sparkling 20/, other 12/ respectively; **Tas.** In wood 6/ per gallon, in bottle 8/, sparkling 10/; **Tr.** In wood, per gallon, 22 deg. 8d, to 42 deg. 2/6, in bottle, per dozen, 42 deg. or lower 2/6, and 3d per gallon additional per degree above this strength; **V.** In wood 6/ per gallon (if containing more than 25% of spirit, rated as spirit), in bottle, sparkling 8/, other 6/ per dozen quarts; **WA.** Sparkling 7/6, other 5/ per gallon.

Wire.—See Brass, Copper, &c.; also Iron, &c.

Woollen and Worsted Yarns and Thread.—See Yarns (Woollen and Worsted).

Woollen and Worsted Woven Manufactures.—See Woven Manufactures (Woollen and Worsted).

Woven Manufactures (Cotton).—**B.** Tissues 4% a v; **BG.** Tissues 7% a v; **CGH.** Tissues and manufactures of 15% a v; **O.** Tissues 5% a v; **DC.** Undyed 1d per square yard, with 15% a v, dyed or coloured, part 1d per square yard, with 15% a v, part 27½% a v, cotton velvets and other fabrics 20% a v, cotton winceys checked, &c., over 25 inches 1d per square yard with 15% a v, other cotton winceys 22½% a v; **Hon.** 4½d to 9½d per lb; **I.** Free; **Ja.** Tissues 12½% a v; **M.** Tissues 6½% a v; **N.** Tissues, cotton blankets or sheets, pure or mixed, in piece or in pairs 15% a v, other kinds 7% a v; **NF.** 13% to 20% a v; **NSW.** Tissues and manufactures of free; **NZ.** calicoes, and dress prints in the piece (value not exceeding 5d per yard) free, other 15% a v; **Q.** Shirtings, cotton piece goods, calicoes, prints, muslins, sheetings, and cotton ticks 5% a v, tissues 7½% a v; **SA.** Free; **Tas.** Cotton, hemp, and jute bags 1½d each, wool packs 4d each, gunny bags and corr. sacks free, other 10% a v; **Tr.** 4% a v; **V.** Free, hosiery of cotton or linen free, other 25% a v; **WA.** Tissues 12½% a v.

Woven Manufactures (Linen, Hemp and Jute).—**B.** Tissues 4% a v; **BG.** Tissues 7% a v; **CGH.** Tissues and other manufactures of, 15% a v; **C.** Tissues, gunnies free, other kinds 6½% a v; **DC.** Jute bagging, and canvas for oilcloth free, sail-canvas 5%, towel, damask and matting 25%, other 20%; **Hon.** 1½d per lb, manufactures 5/; **I.** Free; **Ja.** Tissues 12½% a v; **M.** Tissues 6½% a v; **N.** Bagging, with a registration charge of 1/ per ton or 6d per package, free, other kinds 7% a v; **NF.** Canvas, sailcloth and bagging 10%, ready-made clothing 20% a v, other 13%; **NSW.** Tissues, bags and sacks 1/ per dozen, gunny bags 6d per dozen, woolpacks 3/ per dozen, other tissues, made up or not, free; **NZ.** Brown holland, Forfar sheeting, sailcloth, duck, &c. (in the piece) free, other 15%, flour, gunny and hessian bags free, woolpacks 2/6 doz.; **Q.** Tissues and piece goods 5% a v; **SA.** Sails (new) 25%, tents and tarpaulins 20%, other (and

Woven Manufactures—continued.

NT.) free; **Tas.** Tissues, corn sacks, gunny bags free, woolpacks 4d each, other bags of hemp or jute 3d each, other kinds 10% a v; **Tr.** 4% a v; **V.** Linen piece goods free, hosiery free, jute piece goods 3d or 3d yard, matting of all kinds 20%, mats 25%, corn sacks 1/, other 6d doz., woolpacks 3/ per doz, gunnies and sugar mats free; tents and tarpaulins 20% a v, oilcloths and other floorcloths 20% a v; **WA.** Piece goods 12½%, canvas 5%, wool bales 4d each, corn sacks 1/ doz, other 6d.

Woven Manufactures (Silk).—B. Tissues 4% a v; **BG.** Tissues 7% a v; **CGH.** Tissues and manufactures of 15% a v; **C.** Tissues 6½% a v; **DC.** 30% a v; **I.** Free; **Ja.** Tissues 12½% a v; **M.** Tissues 6½% a v; **N.** Tissues 7% a v; **NF.** 13% a v; ready-made clothing 20%; **NSW.** Tissues, and manufactures of, free; **NZ.** 15% a v; **Q.** Tissues 7½% silk mixtures 5% a v; **SA.** 15%, (NT.) 10% a v; **Tas.** 10% a v; **Tr.** 4% a v; **V.** Pongees 10% a v; other 20% a v; **WA.** Tissues 12½% a v.

Woven Manufactures (Woolen and Worsted).—B. Tissues 4% a v; **BG.** Tissues 7% a v; **CGH.** Tissues and manufactures of 15% a v, blankets and rugs 10% a v; **C.** Tissues 6½% a v; **DC.** All fabrics composed wholly or in part of wool worsted, the hair of the Alpaca goat or other animal, costing 5d per yard and under, 22½% a v; costing over 5d and under 7d per yard 25% a v; costing 7d and over 27½%; clothing, ready made, 5d per lb and 25% a v; **I.** Free; **Ja.** Tissues 12½% a v; **M.** Tissues 6½% a v; **N.** Blanketing 15% a v, other kinds 7½% a v; **NF.** Tissues 13% a v, ready-made clothing 20% a v; **NSW.** Tissues and manufactures of, free; **NZ.** Tissues and manufactures of, 15% a v; **Q.** Tissues 7½% a v, alpacas, zancellas, and hunting 5% a v; **SA.** Hosiery (knitted) 20%, (NT.) 10% a v; **Tas.** Unmanufactured free, other 10% a v; **Tr.** 4% a v; **V.** Tissues, all dress piece goods containing wool 7½% a v, broad and narrow cloths 20% a v, blanketing and rugging, carpeting and drugging 20% a v, woollen piece goods (vestings, trouserings, coatings and shirtings) containing wool, broadcloths, witneys, naps, flannels, mantle cloths, cloakings and ulsterings 20%, articles of wearing apparel 25% a v, hosiery 20%; **WA.** Tissues, 12½% a v.

Yellow Metal.—See Brass, Copper, &c.

Yarns and Thread (Cotton).—B. All kinds 4% a v; **BG.** All kinds 7% a v; **CGH.** All kinds 15% a v; **C.** All kinds 5% a v; **DC.** Yarns unbleached or undyed, under forties 9/4 per cwt with 15% a v, bleached or dyed, under forties 14/ per cwt with 15% a v, between 40 and 60 free (if for manufacture of Italian cloths and worsted fabrics), other kinds 20% a v; **I.** All kinds free; **Ja.** All kinds 12½% a v; **M.** All kinds 6½% a v; **N.** All kinds 7% a v; **NF.** All kinds free; **NSW.** All kinds free; **NZ.** Sewing cottons and thread free, other kinds 15% a v; **Q.** Twine 9/4 per cwt, other kinds 7½% a v; **SA.** Spun yarn 3/ per cwt, knitting, embroidery and crochet 10% a v, sewing thread free; **Tas.** Candle cotton and spun yarn free, all other 10% a v; **Tr.** All kinds 4% a v; **V.** Twine, except sewing or seaming 14/ per cwt, spun yarn 11/3 per cwt, other yarn and sewing threads free; **WA.** All kinds 12½% a v.

Yarns and Thread (Linen, Hempen and Jute).—B. All kinds 4% a v; **BG.** All kinds 7% a v; **CGH.** All kinds 15% a v; **C.** 6½%; **DC.** Jute yarn for manufacture of carpets, &c., free, cordage 3d per lb, with 10% a v, other 28%; **I.** All kinds free; **Ja.** All kinds 12½% a v; **M.** All kinds 6½% a v; **N.** All kinds 7% a v; **NF.** Hemp yarn free, cordage 10%, other 17½%; **NSW.** All kinds free; **NZ.** Sewing thread, &c. free, other kinds 15% a v; **Q.** Twine 9/4 per cwt, other kinds 7½% a v; **SA.** Sewing thread and twine free, spun yarn 3/ per cwt, other 10% a v; **Tas.** All kinds 10% a v; **Tr.** All kinds 4% a v; **V.** Twine of hemp or flax (except sewing or seaming) 14/ per cwt, spun yarn 11/3 per cwt, other yarns and sewing thread free; **WA.** All kinds 12½% a v.

Yarns (Silk).—B. All kinds 4% a v; **BG.** All kinds 7% a v; **CGH.** All kinds 15% a v; **C.** All kinds 6½% a v; **DC.** Silk in the gum, not more advanced than singles, tram, or thrown organzine, not coloured 15% a v, sewing and twist 25% a v; **I.** All kinds free; **Ja.** All kinds 12½% a v; **M.** 6½% a v; **N.** All kinds 7% a v; **NF.** All kinds 13% a v; **NSW.** All kinds free; **NZ.** Silk twist (shoemakers' and saddlers') and sewing silk free, other kinds 15% a v; **Q.** All kinds 7½% a v; **SA.** Free; **Tas.** 10%; **Tr.** All kinds 4% a v; **V.** All kinds free; **WA.** All kinds 12½% a v.

Yarns and Thread (Woollen and Worsted).—**B.** All kinds 4% a v; **BG.** All kinds 7% a v; **CGH.** All kinds 15% a v; **C.** All kinds 6½% a v; **DC.** Yarn, knitting yarn, fingering yarn, worsted yarn 61 155 per cwt with 20% a v, other kinds 20% a v; **I.** All kinds free; **Ja.** All kinds 12½% a v; **M.** All kinds 6½% a v; **N.** All kinds 7% a v; **NF.** Woollen and worsted yarn of all kinds 10% a v; **NSW.** All kinds free; **NZ.** Sewing threads free, other kind 15% a v; **Q.** All kinds 7½% a v; **SA.** Sewing free, spun yarn 3/ per cwt, all other 10% a v; **Tas.** All kinds 10% a v; **Tr.** All kinds 4% a v; **V.** Spun yarn 11/3 per cwt, other kinds free; **WA.** All kinds 12½% a v.

Zinc and Zinc Wares.—**B.** All kinds 4% a v; **BG.** All kinds 7% a v; **CGH.** All kinds 15% a v; **C.** Apparatus and parts of machinery free, zinc in cake or slab 11½d per cwt, zinc perforated 5/7½ per cwt, other kinds 6½% a v; **DC.** Pigs, blocks, and sheets free, seamless drawn tubing 10% a v, dry white for paint 5% a v, other manufactures 25% a v; **Hon.** 1d per lb; **I.** All kinds free; **Ja.** Pipes for conveying fluids, stills, or parts of, and parts of steam-engines and machinery free, other kinds 12½% a v; **M.** Machinery and apparatus for manufacture or improvement of produce, free, other kinds wrought and unwrought 6½% a v; **N.** All kinds 7% a v; **NF.** Zinc and zinc nails for sheathing vessels, nail strips for manufacture of cut nails, printing materials free, other kinds 13% a v; **NSW.** All kinds free; **NZ.** Zinc plain sheet free, sheet other than plain 15% a v, tiles, ridging, guttering, piping, and roll, 1/ per cwt, other manufactures 15% a v; **Q.** Zinc free, zinc ware 7½% a v; **SA.** Window sashes 2/6 per pair, tubing 2/6 per cwt, other kinds free; **Tas.** Ore, ingot, sheet, and plate free, other kinds 10% a v; **Tr.** All kinds 4% a v; **V.** Ingot and sheet free, zinc ware, including perforated zinc 25% a v; **WA.** Zinc sheet 5% a v, other kinds 12½% a v.

III.—FOREIGN COUNTRIES.

ABBREVIATIONS.

A. = Austria.

Ar. = Argentine Republic. Articles not specified pay 25% a v; 1 peso = 100 centesimos (cts) = 4/2 kilo. 2'204 lbs.

B. = Belgium.

Br. = United States of Brazil. The additional import duties are denoted by an asterisk (*) The rates are given in milreis per kilog. (2'204 lbs.) where not otherwise stated. Milreis = 1000 reis = 2/1.

C. = Chili. Articles not specified pay 25% a v. Commencing on January 1st, 1889, a surtax of 50% will be levied on all duties payable.

Ch. = China. 1 pecul = 100 catties = 133 1/3 lbs avoirdupois; 1 chang = 10 Chinese feet = 141 Engl. inches, 1 chang = 3 yards 9 inches; 1 tael = 10 mace, 1 mace = 10 condareen, 1 condareen = 10 cash. The value of the tael varies at different ports in China from 5/9 to 6/8: t.m.c.c. 0'0'0'0

Cor. = Corea. All import duties are ad valorem.

D. = Denmark.

E. = Ecuador. A municipal tax in addition to tariff is levied on all imports.

F. = France.

G. = Germany.

Gr. = Greece. Oke = 2'8 lbs; leptas = 9/10 d.

Hl. = Hawaiian Islands.

Hay. = Hayti. A surtax of 50%, and an additional 33 1/3% is levied upon the established duties mentioned in this tariff.

H. = Holland.

I. = Italy. Quintal 220'4 lbs; lire 9/10 d.

J. = Japan. Catty = 1 1/2 lb, cent = 1/100 of a boo, 1 boo = 1/10 of a dollar.

M. = Mexico. The rates are given in dollars: 1'00 = 4/2, 1 kilogramme = 2'204 lbs avoirdupois. NOTE.—By n.w. (net weight) the actual weight of the merchandise is understood; by l.w. (legal weight) that which includes, besides the "net weight," that of the interior bottles, boxes, winders, wrappers, &c., in which the articles are imported; and by g.w. (gross weight) the total weight of the packages. When merchandise, which pays according to the legal weight, has no other covering besides the one which forms the outside package, the actual weight of the merchandise will be considered to be its legal weight.

NI. = Netherlands East Indies. Florin = 1/8, kilogramme = 2'204 lbs. Articles not specified pay 6% a v.

Nic. = Nicaragua.

N. = Norway. Kilo = 2'204 lbs, krona = 100, ore = 1'14 d.

Per. = Peru.

PR. = Porto Rico. Agricultural implements and machines, coal (vege-

table and stone), gold, silver and bullion (bars or money), are admitted free of duty. The rates are given in pesos: 1 peso = 100 centavos = 3/9. Duty per 100 kilogs is levied on the following articles when exported from PR.:—namely, sugar, all kinds, 22 cts; coffee, 54 cts; wood, all kinds 60 cts, honey, 5 cts; tobacco, 22 cts. Kilog. = 2'204 lbs.

P. = Portugal.

R. = Roumania.

Rus. = Russia.* After various Russian duties denotes that the articles so marked are subject to a duty of 10% on each rouble of duty leviable. † 20% ditto. ‡ 30% ditto. Pood 36 lbs, rouble 3/2.

Sal. = San Salvador. The present tariff is fixed at 80%, say 60% payable in cash and 20% in Government Bonds. A new tariff has, however, been passed, and when it comes into operation the maritime duties will be collected upon the gross weight of imported articles. During the first six months duties will then be charged at the rate of 110%, payable 80% in cash, and 30% in Government Bonds; afterwards the rate will be reduced to 100%: 70% in cash, and 30% in bonds.

Siam. The import and export duties are fixed at 3% a v; and are returned if the goods are re-exported. Arms and Ammunition are imported only by special permit. Bullion and specie, wearing apparel and provisions, intended for personal use, are imported and exported free of duty.

S. = Spain. The conventional tariff only

Sn. = Sweden.

Sz. = Switzerland. Quintal 220'4 lbs,

franc 9/10 d.

T. = Turkey.

US. = United States.

USC. = United States of Colombia.

Ur. = Uruguay. Kilo 2'204 lbs, peso fuerte 4/2.

V. = Venezuela. All foreign merchant dize is divided into nine classes, on which duty is collected as follows:—1st class, free. 2nd class, 10 c. of a bolivar per kilo. = 3/7 1/2 English currency per 100 lb. 3rd class, 25 c. of a bolivar per kilo = 9/1 English currency per 100 lb. 4th class, 75 c. of a bolivar per kilo. = £1 7s 3 1/2 d English currency per 100 lb. 5th class, 1 bolivar and 25 c. per kilo. = £2 5s 5d English currency per 100 lb. 6th class, 2 bolivars and 50 c. per kilo. = £4 10s 10d English currency per 100 lb. 7th class, 5 bolivars per kilo. = £9 15s 8d English currency per 100 lb. 8th class, 10 bolivars per kilo. = £18 3s 4d English currency per 100 lb. 9th class, 20 boliva s per kilo. = £36 6s 6d English currency per 100 lb.

Acetic Acid.—See Vinegar.

Agricultural Implements and Machinery.—See Brass and Copper; also Iron and Steel.

Ale.—See Beer and Ale.

Alkali, per cwt.—**A.** Carbonate of soda, unrefined or crystallised 9½d, bicarbonate of soda 3/0½, caustic soda 4/0½, soda ash 1/2½; **B.** All kinds free; **Br.** Alkaloids or natural and artificial bases and their salts, not specially named, 100 per gramme; **D.** Caustic soda, crystals of soda, soda ash free; **F.** Caustic soda 2/7½, carbonate of soda refined, of 60 degrees or above 1/8, crystals of soda 9½d, bicarbonate of soda 2/1½; **G.** Caustic soda 2/0½, soda ash and bicarbonate of soda 1/3½, soda, raw, natural or artificial, and crystals of soda 9½d; **Gr.** 12s.; **H.** All kinds free; **I.** Soda, caustic, pure 2/0½, ditto impure 2½d; **N.** Soda free; **PR.** Alkalis 2 p 3 cts; **P.** Caustic alkalis free, crystals of soda 2/6, soda ash and carbonate of soda 2/6, bicarbonate of soda 5% a v; **R.** All kinds free; **Rus.** Crystals of soda 1/5½, soda ash 2/11½, caustic soda 6/1, bicarbonate of soda 3/11½; **Sal.** Carbonate of soda and potash 5½d per lb; **S.** Alkaline, carbonate and caustic alkalis 4½d; **Sn.** Soda free; **Sz.** Caustic soda 5d, carbonate of soda, crystals of soda and soda ash 1½d, bicarbonate of soda 1½d; **T.** All kinds 8% a v; **US.** caustic soda 4/8, soda ash, soda or soda crystals 1/2, bicarbonate of soda 7/.

Alum, per cwt.—**A.** 1/6½; **B.** Free; **Br.** Dry, and others, 1'000 per kilo, *30%; **Ch.** 5d per pecul; **Cor.** 5% a v; **D.** Free; **F.** 4½d; **G.** 1/6½; **Gr.** Free; **H.** Free; **I.** 2½d; **J.** 15 cents per 100 catties; **N.** Free; **PR.** 6/0½ per 100 kilos; **P.** 5% a v; **R.** Free; **Rus.** Crystalline of every kind 2/5½, calcined or in powder 2/11½; **Sal.** 1½d per lb; **S.** 5½d; **Sn.** Free; **Sz.** 1½d; **T.** 8% a v; **US.** 2/9½; **Ven.** Crude, third class.

Anchors.—See Iron and Steel.

Anchor Chains.—See Iron and Steel.

Anchovies.—See Fish.

Angle Iron.—See Iron and Steel.

Arms and Ammunition.—See Iron and Steel.

Arsenic (White), per cwt.—**A.** 6d; **B.** Free; **Br.** '050 per kilo, *10%; **Ch.** 4m 5 con per pecul; **D.** 4/8½; **F.** Free; **G.** Free; **Gr.** Free; **H.** Free; **I.** Free; **M.** Free; **N.** Free; **P.** Free; **R.** Free; **Rus.** 5/5. (NOTE.—Arsenic is only allowed to be imported in double casks or cases.) **S.** 4/0½; **Sn.** May be imported by druggists only, and by manufacturers on special permission from the "Kommerskollegium" free; **Sz.** 1½d; **T.** 8% a v; **US.** Free; **Ven.** 5th class.

Axes.—See Iron and Steel.

Bacon and Hams, per cwt.—**A.** 3/0½; **B.** Free; **Br.** Bacon salted or in brine 120, hams prepared in any way 450; **D.** Free; **F.** 1/10; **G.** 10/2; **Gr.** Free; **Hay.** Salt hams 1d per lb; **H.** Salted 10½d, smoked or dried 1/0½; **I.** 8/2; **N.** Smoked 11/4, other kinds free; **PR.** Bacon 16/11 per 100 kilos; **P.** 18/8; **R.** 12 os 8d; **Rus.** 7/11½; **S.** 6/1; **Sn.** Free; **Sz.** 1/7½; **T.** 8% a v; **US.** 9/4; **USC.** Ham preserved 10d per kilog; **Ur.** Hams 51% a v; **Ven.** 3rd class hams, salt, pickled or smoked, 4th class hams in tins.

Bands for Machinery.—See Indiarubber and Gutta Percha; also Hides and Skins, and Woven Manufactures (Cotton).

Barges.—See Ships and Boats.

Barytes, per cwt.—**A.** Sulphate of baryta (artificial) 3/0½; **B.** Free; **Br.** 100 30% per kilo; **Cor.** Paints 7½%; **D.** Not specified; **E.** Paints for domestic steamers free; **F.** 5% a v; **G.** 1/6½; **Gr.** Free; **HI.** Paints 10%; **Hay.** Paints, all kinds 1d per lb; **H.** Free; **I.** Sulphate of baryta 4½d, carbonate of baryta 9½d, nitrate of baryta 1/7½; **N.** free; **Per.** Paints 45% a v; **P.** 1/3; **R.** Free; **Rus.** Sulphate of baryta 5/5, caustic baryta 11/10; **Sal.** Paints, oil, 2½d, dry, g w. 1½d per lb; **S.** Sulphate of baryta 1/11½; **Sn.** Not specified; **Sz.** Sulphate of baryta 1½d; **T.** 8% a v; **US.** Sulphate of baryta unmanufactured 10% a v, ditto manufactured 1/2; **Ven.** 3rd class, common oil, black lead, red lead, chromate of lead, lamp black, 2nd class, ochre, 5th class, paints not specified.

Bassinettes.—See Tin and Tinwares.

Batiste.—See Woven Manufactures.

Bedsteads.—See Iron and Steel

Beef, Salted, per cwt.—A. $3/0\frac{1}{2}$; B. Free; C. 25% a v; D. Free; F. $1/10$; G. $10/2$; Gr. Free; H. Salted $5/1$, smoked or dried $6/9$; I. $8/2$; N. Smoked $11/4$, other kinds free; P. 31 r. per kilo; R. Salted $10/2$, smoked 12 os $8d$; Rus. $7/11\frac{1}{2}$; S. Salted or jerked $1/1\frac{1}{2}$; Sn. Free; Sz. $1/7\frac{1}{2}$; T. 8% a v; US. $4/8$, corned beef and pork in barrels $4d$ per lb, cooked beef and pork in hermetically sealed cans 25% a v.

Beer and Ale.—A. In casks $3/0\frac{1}{2}$ per cwt, in bottles and jars $7\frac{1}{2}d$ per bottle; B. In casks $2d$ per gallon, in bottles $3d$ per gallon; Br. Beer of all kinds and cider 120 per litre 40% ; C. In bottles 125 ps. per doz bottles, in other receptacles $0/02$ per litre; Ch. Free; Cor. 10% ; D. In casks, &c. $1/2$ per cwt gross, in bottles $6\frac{1}{2}d$ per gallon; E. $2d$ per lb, F. All kinds (excise duty included) $33\frac{3}{4}\%$ per gallon; G. $2/0\frac{1}{2}$ per cwt; Gr. In casks $11/2$ per cwt, in bottles $19/2$; Hl. $10d$ per dozen pints, $1/8$ per dozen quarts, in bulk $7\frac{1}{2}d$ per gallon; Hay. Beer and porter, $3/4$ per barrel of 60 gallons, ditto bottled $1/0\frac{1}{2}$ per doz; H. $2\frac{1}{2}d$ per gallon; I. Import duty, in casks $1d$ per gallon, in bottles $1\frac{1}{2}d$ per bottle, excise duty per degree of strength as indicated by the saccharometer $4d$ per gallon, if not submitted to the test (the strength being estimated at 16 degrees) $4\frac{1}{2}d$; Nl. In barrels $3\frac{1}{2}d$, in bottles $4d$; Nic. $1d$ per lb; N. In barrels $9/7$ per cwt, in bottles $1/0\frac{1}{2}$ per gallon; PR. $14/6$ per hectolitre; P. 700 r. per decal; R. In casks $3/5\frac{1}{2}$ per cwt, in bottles and jars $6/1$; Rus. In casks $10/10$ per cwt gross, in bottles $6\frac{1}{2}d$ per bottle; Sal. $6/3$ per dozen bottles, in barrels $1/6\frac{1}{2}$ per gallon; S. $4\frac{1}{2}d$ per gallon; Sn. Stout and porter in casks $3/11\frac{1}{2}$ per cwt, in bottles $7\frac{1}{2}d$ per gallon, other kinds, in casks $2/10$ per cwt, in bottles $4\frac{1}{2}d$ per gallon; z. In casks $1/5$ per cwt, in bottles $4/0\frac{1}{2}$, beer and malt extracts, $2/0-38$ in casks; T. 8% a v, beer or cider in bottles of more than 1 litre per bottle 12 c per bottle, beer in cask 10 fr. per litre; US. In casks $10d$ per gallon, in bottles $1/5\frac{1}{2}$, bottles 30% extra; USC. $5d$ per kilog; Ven. 3rd class beer, 5th class condensed ditto.

Bicycles.—See Carriages.

Biscuits.—See Confectionery.

Blankets.—See Woven Manufactures (Woollen and Worsted).

Bleaching Materials.—A. Chloride of lime $1/6\frac{1}{2}$ per cwt, chromate of potash $4/0\frac{1}{2}$, sulphite and hyposulphite of soda $4/0\frac{1}{2}$; B. Free; D. Chloride of lime and bleaching powder free; F. Chloride of lime $1/5$ per cwt, bichromate of potash $4/0\frac{1}{2}$, sulphite of soda $10\frac{1}{2}d$, hyposulphite of soda $1/11\frac{1}{2}$; G. Chloride of lime $1/6\frac{1}{2}$, chromate of potash, sulphite of soda free; Gr. Free; H. Free; I. Chloride of lime and of potash and hypochloride of soda free, sulphite of soda $1/7\frac{1}{2}$, chromate of potash $1/7\frac{1}{2}$; N. Bleaching powder, &c. free; P. Chloride of lime free, chromate of potash 5% a v, sulphite and hyposulphite of soda 5% a v, R. Free; Rus. Chloride of lime and bleaching powder $4/4$, chromate of potash $4\frac{1}{2}$ is $8d$; S. Chloride of lime $6\frac{1}{2}d$, chromate of potash $4/0\frac{1}{2}$, hyposulphite of soda $4/0\frac{1}{2}$; Sn. Chloride of lime free; Sz. Chloride of lime $1\frac{1}{2}d$, chromate of potash $3d$, sulphite and hyposulphite of soda $1\frac{1}{2}d$; T. 8% a v, paper used as blue for linen $6/8$; US. Chloride of lime free, chromate of potash $1\frac{1}{4}$.

Blinds.—See Woven Manufactures.

Bloom Iron.—See Iron and Steel.

Boats.—See Ships.

Boilers.—See Brass and Copper; also Iron and steel.

Bolts.—See Iron and Steel.

Books, Engravings, &c.—See Paper, &c.

Boots and Shoes.—See Hides and Skins, also Indianrubber and Gutta Percha.

Borax, refined, per cwt.—A. $1/6\frac{1}{2}$; B. Free; D. $4/8\frac{1}{2}$; F. $4/0\frac{1}{2}$; G. Free; Gr. Free; H. Free; I. $2\frac{1}{2}d$; N. Free; P. Free; R. Free; Rus. $1/1$; S. $4/0\frac{1}{2}$; Sn. Free; Sz. $5d$; T. 8% a v; US. $4\frac{1}{2}$ is $3d$.

Brandy.—See Spirits.

Brass and Copper, per cwt.—A. Copper, brass, nickel, and packfong, rough in blocks, also old broken copper, &c. free, copper, drawn or rolled, in bars and plates, sheets and wire above $\frac{1}{2}$ millimetre in thickness $8/2$, copper, sheet and wire, of $\frac{1}{2}$ millimetre and less, also hollowed and perforated plates and sheets $10/2$, copper, coarse castings, such as bells and pipes, provided each article weighs more than 5 kilos, and other castings, provided each piece weighs more than 10 kilos $6/1$, wares of the above metals, common, as boilers, cylinders, kettles, kitchen utensils, and distilling apparatus, not lacquered or polished, combined or not with wood or iron $10/2$, fine (not otherwise specified) combined or not with other materials, also wire, sheets, tablets, and plates of copper or brass, plated or silvered $15/3$, brass i.e.,

Brass and Copper—continued.

- articles *de luxe* and other finely wrought, ornamented, and varnished or nickeled wares, wares of packfong, bronze, brass, &c., also wire gauze of 20 warp-threads, and above per 2 centimetres, wire with thread covering £1 10s 6d. (NOTE.—Copper and brass cylinders and plates, engraved or not, for Austrian cloth-printing factories, may by special authorisation, be admitted free.)
- B.** Copper, rough copper or nickel sheets, bolts, and nails for sheathing ships free, copper, pure, or mixed with tin or zinc, hammered or rolled, 4/0¹, copper wares 10% a v; **Br.** Wrought, unwrought in blocks, bars, rolls, &c. 250 per kilo, wares of all kinds, without silver or gold 1'000 and 30%, wire 300, in combination with paper, cotton, or caoutchouc 500, gilt or silvered 1'000 and 30%, nails, screws 360 and 30%, pipes of all kinds 300 and 10%; **C.** Copper in sheets or plates for sheathing ships free; **Ch.** Manufactured as in sheets rods, nails 100 catties 1'5'0'0, unmanufactured as in slabs 1'0'0'0, yellow metal, sheeting and nails 0'9'0'0, copper, Japan 0'6'0'0, buttons 0'0'5'5 per gross, foil 1'5'0'0 per pecul, brass ware 1'0'0'0 per pecul, wire 1'1'5'0 per pecul, copper ware and pewter ware 100 catties 1'1'5'0, old copper sheeting and copper ore 100 catties 0'5'0'0; **Cor.** Brass and manufactures 7¹/₂%, copper, ore, ingots, bar and sheet 5%; **D.** Copper, unwrought, in ingots or cakes &c. free, bolts of copper and yellow metal, and metal sheathing, 2/4¹/₂, other kinds, as plates, sheets cylinders, wire, large cauldrons, &c. 7/1, copper wares, bronzed, lacquered, gilt, or plated, and wares of white copper composition £1 17s 8d, other kinds 18/10; **E.** Brass and manufactures, also copper ore, ingots, bar and sheet 1d per lb; **F.** Copper or brass, in bars, ingots, or slabs, and old broken copper free, hammered or rolled 4/0¹, wire polished or not 4/0¹, copper wares, copper or brass cylinders, engraved free, ditto, not engraved 6/1, dents of reeds and reeds complete 12/2, other copper or brass wares, kitchen utensils, wire gauze, parts of machines, &c. 8/2; **G.** Copper, brass, &c., raw and old broken copper, free, hammered or rolled in bars, sheets, or plates 6/1, wire, including telegraph wire and cables 6/1, sheets of wire, plated 14/3, coarse copper or brass wares, combined or not with wood or iron, not polished or lacquered, tubes of sheet brass, also wire gauze 9/2, fine lacquered brass wares, combined or not with other materials, provided they cannot be classified under the heading of small ornamental wares £1 10s 6d, other copper or brass wares, except small ornamental wares 15/3, small ornamental wares £5 1s 7d; **Gr.** Copper, old and filings, in blocks, bars, sheets or plates 12 9/4, tubes and pipes, plates and sheets, with alloy of zinc or other metals, for sheathing ships, engraved plates for printing, nails and screws of all sorts free, copper buttons, gilt or not £1 12s, other articles of copper not specially mentioned £1 12s, bronze, bronze in blocks, bars, plates, or sheets, and wire (without gilding), joints for machines, tubes or pipes free, common wares not specially mentioned £1 12s, fine wares, chased, gilt, or enamelled £3 4s, ditto ornamented with precious metals £4 16s, trays and waiters of brass or bronze £1 12s; **Hi.** Brass and manufactures 10%, copper, ore, ingots, bars and sheets free; **Hay.** brass and manufactures not otherwise mentioned 4/2 per cwt, bells ditto £1 0s 10d, ditto bronze 16/8, ditto small hand 2/1 per doz, watch keys 6d, do. fine 4/2; **H.** Copper, unwrought and old copper, hammered or rolled plates, sheets, nails or wire, red or yellow metal free, copper wares, basins, kettles, and other partly wrought manufactures of copper not otherwise enumerated free, copper wares, lacquered, painted or not, gilt or bronze, gilt wire and nails 5% a v; **I.** Ingots, cakes, rosettes, filings, and old broken articles 1/7¹/₂, bars, plates and sheets 5/10, tubes (any dia.) 8/1¹/₂, wire (any dia.) 8/1¹/₂, hammered or rolled in coarse articles 7/4¹/₂, ornamental articles not gilt or silvered £1 10s 5¹/₂d other 12/2¹/₂, rods or wire, gilt or silvered, also gilt and silvered, wound in threads of textile materials £2 0s 7¹/₂d, gilt and silvered, other £2 8s 8¹/₂d, cylinders and engraved plates for printing free, wire gauze, as the wire of which composed, with 15 lire per 100 kilograms, additional; **J.** Brass buttons 22 cents per gross, copper and brass in slabs, sheets, rods and nails 3 boos 50 cents per 100 catties, yellow metal, muntz metal, sheathing and nails 5'50; **M.** Copper and its alloys, manufactures of copper, brass, or bronze of all kinds, g w 0'30, ditto or of any common metal, gilt or plated g w 1'30, ditto nickeled, not otherwise dis-

Brass and Copper—continued.

- tinguished, g w 0'70, hollow wire and other articles of wire-drawn work of yellow metal, not gilt or plated, g w 1'20, copper in plates or sheets, g w 0'15, brass furniture of any kinds, with or without marble tops or mirrors, g w 0'20, copper wire insulated with any material for electric lighting, provided the diameter of the wire alone be up to No 6 Birmingham measurement, and that the interested persons prove its destination, free; other kinds 19/9; **N.I.** Copper, raw and refined, wrought or rolled, including plates and leaves for coppering bottoms of vessels, copper for coining, rods for cross beams, bolts, and nails, free, articles made of copper, whether lacquered or not, gilt or painted, bronze work and copperw 1210% a v; **Nic.** Brass and all manufactures 51d lb; **N.** Copper, brass, and bronze, plates, sheets, bolts, clinch-rings and plates, sieve bottoms, bars, and unpolished tubes, tacks, nails, screws, rivets and nuts, wire, free, manufactures of copper or brass wire, plain or in combination with other materials not otherwise specified 19/0, plates, silvered or plated free, buttons, plain or combined with stone, glass, mother of pearl, porcelain, &c., including the weight of the wrapper, 19/9, cast busts or statues above 25 kilos (55 lbs) in weight free, other manufactures, gilt, silvered or plated £1 10s 6d; **Per.** 2/2 to 5/1 per 100 kilograms, copper, ingots, bar, sheet 45% a v; **PR.** **PR.** Brass bars £2 1s 3d per 100 kilograms, sheet, nail, wire tubes £3 0s 5d, all other £4 10s 14d, copper, ore, ingots and bar £2 1s. 3d, sheet £3 0s 5d; **P.** per kilo, copper, pure or mixed with brass, bronze, &c., in unfinished basins, 35 r, ditto hammered or not otherwise mentioned, and tubing 70 r, ditto wire-drawn 80 r, ditto manufactured, not otherwise specified, plain, gilt, or silvered by any process 230 r, copper in plates and bars free; **R.** Copper, brass and bronze, unwrought in any form, broken articles of copper, bronze, and brass, copper filings, none of these gilt or silvered in sheets or wire, including cords for musical instruments, copper or brass wire for tissues and embroidery, not gilt or silvered free, articles of copper or brass wire, polished, tinned, painted or not, but not gilt or silvered, copper or brass wire gauze £1 8s 5d, braziers' wares of all sorts for kitchen and household use, vessels and apparatus for factories, boats, steam engines, &c., such as boilers, vats, reservoirs, apparatus for distillers, refiners, dyers, &c., common articles of copper, brass, or bronze simply cast or turned, common wares of sheet copper, brass, or bronze, all of these neither painted, polished, varnished, gilt, nor silvered £1 12s 6d, finely wrought, painted, polished or varnished articles of copper, brass or bronze, chased or otherwise ornamented, gilt, silvered or not, combined or not with other common materials (such as steel, wood, porcelain, crystal, &c.), but exclusive of mother of pearl, ivory, tortoise-shell and precious metals £4 1s 4d, objects of art, such as statues, statuettes, busts, bas-reliefs, candelabra, lustres, candlesticks, lamps, table and desk ornaments and artistic ornaments of bronze, gilt or not, combined or not with other materials, with the exception of ivory, mother of pearl, tortoise-shell, and precious metals £6 2s, nickel and alloys, nickel, unwrought, in lumps, hammered, beaten or drawn, not gilt or silvered free, packfong, unwrought, in lumps, hammered, beaten, or drawn, not gilt or silvered free, unenumerated articles of argentine or packfong, or other white alloys, neither gilt nor silvered £4 1s 4d. (**NOTE.**—When these articles are gilt or silvered an additional surtax of 50% above these duties will be levied.) **Rus.** Copper, brass, &c., red and yellow, also brass and other alloys, in pigs, blocks, shavings, filings and scrap £1 4s 8d, sheets, bars and rods £1 10s 7d, wire, 1/4 in. and less in thickness £1 19s 5d, manufactures of wire or of wire covered with cotton, silk or caoutchouc £2 14 2d, in sheets, polished £2 6s 10d, apparatus and parts of fittings of machines or machinery, composed wholly or principally of copper £1 14s 6d, cylinders, engraved or not, for cotton-printing mills, &c. £2 6s 10d, articles of brass or copper not otherwise enumerated, combined or not with wood, iron, tin, leather, or other similar materials £2 6s 10d articles of bronze and other alloys of copper, except brass, wholly or partly made up, weighing more than 1 funt each, lacquered or not £7 16s 2d, † articles of bronze, oxidised, gilt or silvered, weighing more than 1 funt each £13 0s 1d, † articles of bronze weighing less than 1 funt each £26 0s 2d; † **Sal.** Brass and manufactures 1/24 per lb., copper, sheets and bars g w 5 1/4d, nails g w 1/24, wares 1/24; **B.** **S.** Copper of first fusion and old 4/9, copper and brass, bars and

Brass and Copper—continued.

- ingots and old brass 7/6½, plates and sheets, nails and copper wire 13/6, and tubes and large articles, partly wrought, as bottoms of braseros and boilers 18/9, brass wire 8/4, wire gauze, not further manufactured 16/9, bronze, unmanufactured 3/9½, wares of copper or of brass, bronze or other alloys, plain or lacquered £1 15s 3d, ditto, gilded, silvered or nicked £4 8s 1d, machinery of copper 9/9. **Sn.** Copper and brass, raw or refined free, nickel, copper and brass wrought or cast, plates and other articles for further manufacture, bolts and nails for ships free, other copper manufactures, not polished 19/9, polished £1 19s 6d, wire, plain free, wire, gilt, silvered or plated £6 12s 8d, strings for instruments 13/7, mixed metals, wrought or cast sheet or nails for sheathing vessels, plates, wires, and articles for further manufacture free, other articles not gilt, silvered or plated 19/9, ditto, gilt, silvered or plated £1 19s 6d; **Sz.** Copper and brass and wares thereof, copper or brass, pure or with alloy, in ingots, blocks or plates, filings and old copper, &c. 4½d, ditto, hammered or rolled, in bars, sheets, tubes, or pipes 1/2½, copper wire 1/2½, articles composed of copper or brass wire 2/10, wire gauze 2/10½, rivets, vices, &c., wire covered with caoutchouc, metallic thread, or other substances 6/1, copper plates for printing 4½d, works in brass, nickel-plated wholly or in part 5/4; **T.** All kinds 8% a v; **US.** Copper, old, fit only for remanufacture and clippings from new copper 14/1, brass, old, fit only for remanufacture 7/1, copper in ingots, pigs, plates, bars, or other forms, not manufactured 18/8, brass in pigs or bars 7/1, copper in rolled plates, called braziers' copper, sheets, rods, pipes and copper bottoms 35% a v, copper wire 45%, machinery of copper, or of which copper is the component part of chief value 45%, sheathing or yellow metal, not wholly of copper nor wholly nor in part of iron, in sheets 48 inches long and 14 inches wide, and weighing from 14 to 34 ounces per square foot 35%, other manufactures, composed wholly or in part of copper or brass 45%, coppered wire to pay as iron or steel wire—see "Iron and Steel"—bronze pipes used in Japan for smoking purposes, but imported into the U.S. more especially as ornaments and specimens of bric-a-brac 70%; **USC.** Copper and bronze, not in bars or ingots 5d per kilog, in sheets, any weight 5d, large pans, kettles, or articles of other kind, weight exceeding 25 kilog. rod, other exceeding 500 grammes, but not 25 kilogs 1/8, others not exceeding 500 grammes 2/1, jewellery, beads, gallons, spangles, and the like, and electro-plated pieces, and cartridges for firearms 4/2; **Ur.** Brass sheets or bars, ingots and powder and manufactures 30% on customs valuation, copper, sheets 70%, ingots and bars 20½%; **Ven.** 3rd class, unmanufactured, 4th, boilers, harness, buckles, chin straps, stoves, nails, padlocks, scales, steelyards, manufactured (not specified), and bridle bits, bells, hinges, stewpans, saucepans, tacks, spoons, spurs, trays, trumpets, wire, stirrups, 5th class, pencil and pen holders, 6th class, buttons, buckles, match boxes, pins, thimbles, 3rd class, scales, balances, steelyards, also copper, old, unmanufactured, ore and rivets, 5th class, sieves, 6th class, shoe, hat or clothing buckles.

Bricks.—See Earthenware and Porcelain.

Bridges.—See Iron and Steel.

Brimstone, per cwt.—**A.** Free; **B.** Free; **Ch.** and sulphur o. 2. o. o. per pecul (cannot be imported or exported except under special authority); **D.** Free; **F.** Free; **G.** Free; **Gr.** Free; **H.** Free; **I.** Free; **N.** Free; **P.** Crude or refined free; **R.** Free; **Rus.** Crude free refined and flowers of sulphur 11½d per cwt*; **S.** 1½d; **Sn.** Free; **Sz.** Crude 1d, refined and flowers of sulphur 1½d; **T.** 8% a v; **US.** Brimstone, crude free, brimstone in rolls or refined 2/1, sulphur, flowers of 4/2; **Ven.** 3rd class.

Bronze.—See Brass and copper.

Butter, per cwt.—**A.** 4/0½; **B.** Free; **Br.** 580 per kilo; **Ch.** Butter including condensed and desiccated milk free; **Cor.** 7½%; **D.** Free; **E.** 3d per lb; **F.** Fresh free, salted 9½d; **G.** 10/2; **Gr.** For the table, fresh or slightly salted £1 18s 3d, salt for cooking purposes 19/2; **H. I.** Free; **Hay.** Per cwt 4/2; **H.** Free; **I.** Fresh 5/1½, salted 7/1½; **Nic.** per lb 2d; **N.** Free; **Per.** Per 100 kilo 7/3; **PR.** Per 100 kilo 38/2; **P.** 18s 1 per kilo; **R.** Fresh or salted £2 0s 8d; **Rus.** 4/11; **Sal.** g w. per lb 3½d; **S.** £1 1s 4d; **Sn.** Free; **Sz.** Fresh, melted, salt 3/3.016; **T.** 8% a v; **US.** 18/8; **Ur.** 51%; **Ven.** 3rd class.

Buttons.—See Woven Manufactures.

Cables.—See Brass and Copper; also Iron and Steel.

Cakes.—See Confectionery.

Calf Skins.—See Hides and Skins.

Calicoes.—See Woven Manufactures.

Cambric.—See Woven Manufactures.

Candles, per cwt.—**A.** Tallow 6/1, sperm, stearine, &c. 11/2, wax 10/2; **B.** All kinds 10/2 a v; **Br.** Tallow 180 30/2, stearine 400 40/2; **C.** Tallow 25/2 a v, other kinds 35/2 a v; **Ch.** Free; **Cor.** 7 1/2 a v; **D.** Tallow 7/1, other kinds 14/1; **E.** Per kilog. 1/0 1/2; **F.** Candles, other than tallow 6/6, excise duty in addition 12/2, tallow candles of which the wicks are woven, twisted or plaited, and chemically treated 4/10 1/2, excise duty in addition 12/2, other tallow candles 2/5 1/2; **G.** All kinds 9/1 1/2; **Gr.** Tallow 6/4 1/2, wax 6 3/4 45; **H. I.** Free; **Hay.** Per lb wax or spermaceti 2 1/2 d, tallow 1 d; **H.** Tallow 2/6 1/2, other kinds 5/2 a v; **I.** Candle waste 4/0.25, tallow free, stearine 6/1 1/2, wax, yellow 8/1 1/2, white 16/3; **J.** 2 boos 25 cents per 100 cattie; **Nic.** Per lb sperm, tallow, composition 3 d; **N.** All kinds 7/4; **Per.** Stearine and paraffine, tallow, sperm 70%; **P.** Candles of every description 80 r per kilo; **R.** Tallow, and articles made therefrom, and all primary materials for the manufacture of candles, stearine, and soap, as well as all products necessary for such manufactures free, tallow 14/8, paraffine 6 10 35 4 d, stearine and spermaceti 10/2, wax 6 1 25 4 d; **Rus.** All kinds 19/8 1/2; **Sal.** Per lb 3 d; **S.** Wax, paraffine, stearine and sperm 12/8, tallow 8 d; **Sn.** Tallow or palmitine 3/11 1/2, other kinds 6/9; **Sz.** Tallow 1/7 1/2, wax, sperm, stearine and paraffine 6/6; **T.** All kinds 8 1/2 a v; **U.S.** Candles and tapers of all kinds 20% a v; **Ur.** Tallow, stearine, wax, or composition 0 1/4; **Ven.** 4th class tallow, 5th class sperm, paraffine, stearine, or composition.

Candy.—See Sugar.

Caps.—See Hats.

Cardboard.—See Paper, &c.

Carpets.—See Woven Manufactures, Woollen and Worsted.

Carriages.—**A.** Carts and wagons 6/ each, carriages not covered with leather nor stuffed 6 2 108, ditto covered or stuffed 6 7 108, railway carriages for passengers, stuffed seats 9/2 per cwt, ditto not stuffed 6/7, for goods 5/1; **Ar.** 40% a v; **B.** 10% a v; **Br.** Bodies of cars, cabs and carriages each 160,000 r, cars, cabs, calashes, broughams, coaches, omnibuses, diligences etc. 60% a v, carriages, wagons etc., for railroads intended for the carriage of persons or goods and appurtenances 15% a v, carts, cars and wagons for carrying merchandise 60% a v, axletrees for carriages 250 r, forks, naves, rims, etc. of iron for carriages and harness 500 r, frames of carriages 32,000 r each, springs for cars, cabs, carriages, and other vehicles for conveying passengers and goods 500 r, spokes, naves, and other pieces of wood for wheels 80 r, wheels for carts, cars, and other conveyances: more than 80 centimetres in diameter 10,000 r per pair, above 80 centimetres 5,000 r per pair, shafts and poles, common, unprepared, or simply sawn 2,000 r per pair, prepared, painted and finished 16,000 r per pair, any parts and articles, not otherwise distinguished, for carriages, cars, or carts 48% a v, hand-carts and wheelbarrows each from 1,600 r to 2,000 r;

C. Cor. **C.** Carriages 35% a v; **Cor.** a v, Carriages 20%, horse cars 7 1/2% cars (railroad, steam) 7 1/2%; **D.** For railways, with or without axletrees or wheels, trollies 6 1 25 3 d each, for passengers, also tenders 6 16 135 4 d, other kinds 6 5 115 1 d, for roads, carriages partially or wholly covered including caleches with or without hoods 6 3 68 8 d, other kinds 6 1 68 8 d, other carriage-makers' work, also carts and wagons 7/1 per cwt; **E.** Per kilog 6 d, horse cars, steam and railroad cars free; **F.** Carts for trade or agricultural purposes with springs 4/10 1/2 per cwt, without springs 2/5 1/2, carriages for railways, ordinary gauge, 1st class 6/6, ditto 2nd and 3rd classes 4/5 1/2, ditto vans for goods 3/8, narrow gauge passenger carriages 8/2, ditto vans for goods 4/0 1/2, contractors' trucks (trollies) 2/0 1/2, tramway carriages, ordinary gauge 8/2, narrow gauge 10/2, carriages, other kinds, weighing 125 kilogrammes (2 1/2 cwt) or more 6 1 05 4 d, weighing less than 125 kilogrammes, including velocipedes 6 2 85 0 d; **G.** Wooden wagon or coachmakers' works, coarse, unpolished or unpainted 1/6 1/2, polished, painted or varnished 5/1, carriages lined or stuffed 6 7 108 each, railway carriages not stuffed or lined 6% a v.

Carriages—continued.

- Gr.** ditto stuffed or lined 10%; **Gr.** Carriages with two wheels new or old covered or not £4 each, carriages with four wheels new or old covered or not £12, bath-chairs and velocipedes 8/, carts, ordinary with two wheels 16/, ditto with four wheels £1 12s, rail or tramway carriages and wagons for passengers 10% a v, for goods 10%; **Hi.** 10%; **Hay.** horse cars free, cars (railroad and steam) free; **Hay.** Carriages 41/8 each, cabs, gigs, etc. 20/10 each; **H.** 5% a v; **I.** Carts, 17/7 each, carriages; with not more than two wheels 33/7 each, with more than two wheels and not more than five springs 88/ each, railway wagons and carriages, goods trucks 4/0½ per cwt, passengers' carriages, third class 5/10* per cwt, second class 6/6, first class 7/8½* per cwt. (*Mixed carriages pay the duty on the highest class of which composed.) **M.** Sets of front wheels for carriages, with their axles, &c., g w'o'60, single wheels g w'o'60; **N.I.** Carriages and parts of carriages **Nic.** 6% a v; **Nic.** Per lb, carriages, carts, wheel barrows 3d, cars, railroad and steam, pay same duties, but any enterprising corporation will get permit to bring in free; **N.** Railway carriages for goods free, for passengers 3% a v, children's carriages, &c. 2/9½ each, carts and wagons, all kinds free, carriages without brake or lining 8/11, carriages with brakes or lining (a) four-wheeled, covered wholly or in part, including caleches with fixed or movable hoods £4 8s 11d, (b) four-wheeled, other kinds **Per.** £1 13s 4d, (c) two-wheeled 8/11; **Per.** Two and four-wheeled carriages 50%, horse cars and railway cars, special agreement; **PR.** Each passenger coach, railway and tramway 848 p, other articles for railways and tramways 174 p, coaches, landaus, omnibuses, and other 87 p, wagons, carts and hand carts per 100 kilo. 2 p 38 c; **P.** Carriages of all kinds, except railway carriages 27% a v, railway carriages 10% a v; **R.** Railway carriages for passengers, 1st and 2nd class, stuffed £26 each, 3rd class carriages, luggage wagons and cattle trucks £18, tramway carriages £8, other carriages, coupés, landaus and clarences with two or four seats, travelling carriages with or without receptacles for luggage, post diligences and omnibuses having eight seats or more, all such carriages upholstered, covered or not £18, light uncovered carriages such as cabriolets, cabs, dog-carts, &c. and omnibuses having less than eight seats, and common carriages hung on springs, covered, upholstered or not £8, detached parts of carriages included under the two preceding categories £1 16s 7d per cwt, vehicles not on springs, neither covered nor stuffed £3 each, detached pieces of carriages comprised in preceding article 12½ per cwt, peasants' carriages of wood neither painted nor combined with iron except as regards the wheels 16/ each, bicycles, tricycles and hand-carts, with the exception of perambulators, also invalid chairs 16/ each; **Rus.** Large, on springs, as coaches, landaus, diligences and omnibuses £17 8s 4d† each, small, as caleches, dog-carts, phaetons, cabriolets, &c. £12 3s 10d,† carts and wagons on springs and carriages with only back springs £5 4s 6d,† carriages of all kinds without springs, also perambulators, &c. £1 14s 10d,† detached parts of carriages not otherwise specified £2 9s 3d per cwt, railway carriages, &c., coal trucks and trollies £13 1s 3d, axle goods wagons £19 3s 2d, carriages, 3rd class luggage and mail vans £30 9s 7d, carriages 1st and 2nd class (combination) £47 17s 11d, ditto 1st class £56 12s 1d, ditto 2nd class £39 3s 9d, tramcars for two horses £34 16s 8d each, for one horse £26 2s 6d; **Sal.** Each, carriages, two wheels £18 10s 2½d, four wheels £30 17s 3½d, cars, of any kind, 5% a v; **S.** Coaches and berlins new or old of four seats, caleches with two "tableros" with or without hoods £32 1s 5d each, berlins with two seats with or without a folding seat, omnibuses holding more than fifteen persons and diligences new or old £24 5s 5d, carriages of two or four wheels without "tableros" regardless of number of seats omnibuses holding not more than fifteen persons and carriages not otherwise specified £10 16s 8d, bodies of carriages plain unpainted 8/1½ per cwt, passenger carriages for railways and tramways 15/5, other railway carriages 4/5, carts and hand-carts 3/5½; **Sn.** Wagons and carts 5/7 each, carriages with two wheels, also sledges 16/8, ditto four wheels, gigs or dog-carts £1 7s 9d, ditto four wheels small with hoods £2 15s 6d, other kinds of carriages £5 11s 1d. **NOTE.**—In case of doubt as to the classification of an imported carriage it is charged 10% a v, but in no case more than £5 8s 4d, detached parts of carriages **Sz.** 10% a v; **Sz.** Carts and wagons 6% a v, carriages 10%, railway carriages

Carriages—continued.

- for passengers 8%, for goods and luggage 8%, parts of carriages, wagons, &c., are chargeable according to the material of which made and the degree of manufacture; T. All kinds 8% a v; **US.** 35% a v; **USC.** Per kilo, railway cars and carriages free, cars and trucks for transport of goods and such uses 1½d, coaches and carriages of all kinds 2½d, velocipedes 1/8; **Ur.** 48% a v; **Ven.** 1st class, cars, railroad, steam, and horse, 2nd class, carriages, calashes, omnibuses, phaetons, and others not specified, wagons, carts, wheelbarrows, wheels, coach, cart, carriage, etc., 3rd class, hearses, with appurtenances, 4th class, children's perambulators and velocipedes.

Carriage Grease.—See Grease

Carriage Springs.—See Iron and Steel.

Cartridges.—See Iron and Steel.

Carts.—See Carriages.

Cast Iron.—See Iron and Steel.

Caviar.—See Fish.

Cement, per cwt.—**A.** 6d; **B.** Free; **Br.** 1005 10% per ko; **C.** 15% a v; **Cor.** 5% a v; **D.** Free; **E.** Per kil. 2½d; **F.** Free; **G.** Free; **Gr.** 1/3½; **Hl.** Free; **Hay.** Per hogshead 4/2, per barrel 1/0½; **H.** Free; **I.** 6d; **M.** Common lime and Roman cement free; **Nl.** Free; **Nic.** Free; **N.** Free; **Per.** 10%; **P.** Free; **R.** 3d; **Rus.** 8½d with an addition of 20% on each rouble of duty leviable; **Sal.** 1/6½ per quintal; **S.** 6d (per ton); **Sn.** Free; **Sz.** White lime and plaster, calcined, or ground 0'97d, hydraulic lime, also Roman cement 1.95d; portland, scoria, and pouzzolane 3'8d; **T.** 8% a v; **US.** 20% a v; **Ven.** 1st class.

Chains.—See Iron and Steel.

Chairs.—See Household Furniture.

Chamois Leather.—See Hides and Skins.

Chandeliers.—See Glass and Glass Wares.

Checks.—See Woven Manufactures.

Cheese, per cwt.—**A.** 4'5½; **B.** Common free, other kinds 4/0½; **Br.** Of all kinds 580 per kilo; **C.** 35%; **Ch.** Free; **Cor.** 7½% a v; **D.** 11/9; **E.** 2½d per kilog; **F.** Hard 1/7½, soft 1/2½; **G.** 10/2; **Gr.** £1 5s 7d; **Hl.** Free; **Hay.** All kinds 9/4 per cwt; **H.** 4/2½; **I.** 4/10½; **Nic.** 2d per lb; **N.** 11/3½; **Per.** 70%; **PR.** 9cts per kilo; **P.** 100 r per kilo; **R.** £1 16s 7d; **Rus.** £2 9s 3d with an addition of 20% on each rouble of duty leviable; **Sal.** g w 3½d per lb; **S.** 14/2½; **Sn.** 3/11½; **Sz.** 1/7½; **T.** 8% a v; **US.** 18/8; **Ur.** 0'25; **Ven.** 4th class.

China.—See Earthenware.

Chloride of Lime.—See Bleaching Materials.

Chocolate.—See Cocoa.

Chromate of Potash.—See Bleaching Materials.

Cigars and Cigarettes.—See Tobacco, Cigars and Snuff.

Cinders.—See Coal.

Clocks and Watches.—**A.** Watches with cases of gold, or gilt 2/ each, ditto silver or silvered 1/, ditto other materials 7½d, cases for watches, of gold or gilt 1/4½, ditto of silver or silvered 5d, ditto of other materials, as materials of which made, works for watches 7½d per set, clocks, common wooden wall clocks and works thereof, also detached parts of clocks and watches £1 10s 6d per cwt, other not specified, and works thereof £2 10s 10d, tower clocks and parts thereof 10/2; **B.** Watches and works thereof free, clocks 10% a v, works of clocks 5%; **Br.** Alarm clocks small, of white or yellow metal 1,600 r each, not otherwise mentioned 48% a v, chimney clocks 3,200 r, hands, spiral springs, chains, dial-plates, and other separate parts of works, for watches 10,000 r, for clocks and timepieces 2,000 r, watches of copper and its alloys, or of nickel 2,000 r each, of silver, plain or gilded 3,000 r each, of gold 6,000 r each, of any description, with precious stones 10% a v. Balance chronometers, for naval use 32,000 r each, not otherwise mentioned 48% a v. (**NOTE.**—Watches of silver, with ornaments of gold, or *vice versa*, and those of gold with ornaments of any other metal, will, as regards payment of duty, be considered as of gold; watches of silver, with ornaments or fittings of silver gilded will be considered as of silver gilded. Watches not finished, watch cases without works, and works without case, will pay duty as watches finished and complete, the works being included in the category of those watches paying the highest duty. The above duties include those on the small common boxes in which the watches and timepieces are imported.) Alarm clocks, small, white or yellow metal,

Clocks and Watches—continued.

- each 1,600 r, other 48% a v; chimney clocks 3,200 r, watches, copper and alloys, or nickel, each 2,000 r, silver, plain or gilded, each 3,000 r, gold each 6,000 r, of any kind, with precious stones 10% a v; balance chronometers for naval use each 32,000 r, not otherwise mentioned 48% a v, keys, of copper and alloys, or iron and steel, for watches 4,800 r, for clocks and timepieces 500 r, clocks and timepieces, parts 2,000 r, watches, parts, 10,000 r, watch glasses 2,800 r; C. Clocks 35% a v, watches 15% a v; Ch. Clocks 5% a v, watches per pair 10'0'0 émaillés à perles per pair 4'5'0. Cor. a v, clocks 10%, watches, gold 20%, other 10%, watches, parts 20%; D. Watches and pocket chronometers, and complete works thereof 1/14 each, table clocks all kinds, with or without shades or stands, and complete works thereof, also detached parts of table clocks, or watches 4d per lb, tower clock and works or detached parts thereof, as materials of which made, other kinds of clocks 2d lb; E. 1/01 per kilo; F. Watches with silver case 9/4d each, ditto with gold cases 2/9d, ditto with cases of common metal 4/4d, watch movements, without cases, gilded, nicked or finished 2/1, ditto other kinds 2/4d per lb, works of table or wall clocks 2/4d, clocks, table or wall, wooden 6/1 per cwt, ditto other kinds 10/2, tower clocks 4/0d each, cases of gold 11/4d, ditto of silver or common metal 4/4d, G. Clocks of all kinds 11d per lb, watches, in gold cases 3/ each, in silver or gilt cases 1/6, in cases of other metals 6d, works without cases 1/6, watch cases of gold 1/6, ditto of other metals 6d; Gr. Common clocks in wooden cases and works thereof, complete or detached 4/4 16s per cwt, other clocks, including mantel clocks and works thereof 4/4, watches of gold, or gold plated 4/ each, ditto of silver, or silver plated 1/7d, ditto of other materials 9/4d, watch cases, gold, or gold plated 2/9d, silver, or silver plated 9/4d, of other materials except platina 4/4d, watch works, complete, without cases 1/2d per cwt; Hl. If without glass front free, with glass front, also watches 10%; Hay. each clocks, musical, large 33/4, brass or bronze 25/1, ordinary, common 8/4, wooden, with chain and weights 2/6, house church, &c., 20% a v; watches, gold 6/3, silver 3/1d, brass 2/1; H. Clocks and watches 5% a v; I. Watches in gold cases 9/6d each, in cases of any other metal 4/8 each, clocks, whether springs or pendulum, not in cases 4/- each, with the addition of the duty on the case, alarums not striking the hours 1/2-4d each, works, complete of watches 1/4d each, ditto of clocks whether spring or pendulum 1/7-2d each, ditto of turrets and church clocks, etc., 8/1d per cwt, detached parts of clocks 4/2 os. 7/4d per cwt.; M. Tower clocks for public or private buildings free; Nl. 6% a v; Nic. Clocks, all kinds 5d, watches, gold, silver, 11 14s. 0/4d, watches, imitation gold, silver and nickel 17s. 0/4d per lb.; N. Watches and pocket chronometers 1/1d each, table clocks, in metal or porcelain case, not exceeding 8 kilos in weight 6d per lb, ditto exceeding 8 kilos in weight 8/11 each, in cases of other materials, not exceeding 5 kilos in weight 6d per lb, ditto exceeding 5 kilos in weight 5/7 each, tower clocks, as manufactured materials of which made, other clocks and dials for the same 4d per lb, watch and clock works, also works put together but without cases 6d. (NOTE.—Clock weights or other parts of tower clocks pay as manufactured materials of which made, wooden cases as wood wares, and other cases as clocks or watches.) Per. clocks 45% a v, watches 10%; PR. each, clocks with ordinary weights and alarums 46 cts, machinery of wall or table clocks with or without cases and chronometers 1 p 61 cts, watches, gold 1 p 80 cts, silver and other metals 1 p 38 cts.; P. Gold watches 1,500 r each, watches of silver or any material other than gold 800 r, clocks or watches not otherwise mentioned, even if they have an alarum or chime, including accessories and ornaments, 25% a v; materials for watchmakers 300 r per kilo; R. Watches and pocket chronometers of gold, watches of any material adorned with gold, watches adorned with precious stones 12/6 each, watches of silver or other materials, not mounted or adorned with gold or precious stones 10d, clocks of bronze only, or of bronze and marble, or other materials except mother-of-pearl, ivory, tortoise-shell, precious metals, and fine or semi-fine stones 1/0d per lb, clocks of various compositions imitating bronze, combined or not with wood (only polished or varnished, lacquered or painted), marble or alabaster, papier-

Clocks and Watches—continued.

- mâché or carton pierre, but without mixture of other materials, 6½d, wall clocks mounted on wood, plain or carved, gilt, silvered, or not, but without incrustations, inlaid work, ivory, mother-of-pearl, tortoise-shell, or precious metals, table clocks, with or without mechanical movements, and alarm clocks, small, for the table 6½d, clock and watch works and appurtenances of all sorts, except watch glasses and parts of public clocks free; **Rus.** Watches and chronometers, gold or gilt 4/7½ each, other kinds 2/4½, † clocks, tower £2 17s 6d, † ditto wooden, with wooden or brass wheels 1/0½, † watch and clock works, complete set 2/4½, † ditto, detached parts thereof 4½d† per lb. (NOTE.—Watch and clock cases pay according to the materials of which made.) **Sal.** tower, £15 8s. 7½d each, metal 1s. 6½d. per inch, wooden 9½d. per inch, watches 10% a v. **S.** S. Watches of gold 6/ each, of silver or other materials 1/1½, watch works, detached parts 1/1 per lb, clocks with weights, and alarm clocks 4½d each, complete works for wall and table clocks, with or without case, also chronometers 3/9. NOTE.—Unfinished works for wall or table clocks are charged 5½d per lb, and cases according to materials of which made. **Sn.** Watches with gold cases, and ships' chronometers 1/1½ each, watches with cases not of gold 6½d, table or wall clocks of bronze, alabaster, or porcelain, or other like material 4½d per lb, ditto of wood, &c., watch and clock works not otherwise enumerated, and detached pieces thereof 6d each, cases or weights, also tower clocks or parts thereof, as materials of which made; **Sz.** Common clocks with wooden cases, painted or not, but not gilt ½d per lb, other kinds 1½d, watches of all kinds 1½d, detached pieces of works of clocks or watches ¾d, cases for watches of all kinds ¾d; **T.** All kinds 8% a v; **US.** Chronometers, box or ships', and parts thereof 10% a v, clocks and parts thereof 30%, watches and parts thereof 25%, watch cases 25%. **Ven.** 6th class clocks (all kinds) chronometers, hour glasses, 8th class watches and cases, 6th class watch or clock keys, gold or silver, 3rd class ditto, not specified, 6th class regulators, springs, hands and other interior machinery for watches and clocks.

Clothing (ready-made).—See Woven Manufactures.

- Coal, Cinders and Patent Fuel.**—**A.** Free; **Ar.** 5% a v; **B.** Free; **Br.** Coal and coke free; **C.** Free; **Ch.** Per ton 0'0'5'0 and Charcoal free; **Cor.** Coal and coke 5% a v. **D.** 1/4 per ton; **F.** Coal and coke 1½d, cinders 1 1-6d; **G.** Free; **Gr.** Coals free; **Hi.** free; **Hay.** 10d per barrel, 4/2 per hogshead; **H.** Free; **I.** Free; **Ni.** Free; **Nic.** free; **N.** Free; **Per** 10%; **P.** 1/6; **R.** Coal and coke free; **Rus.** Imported at Baltic ports 1/11, ditto Black Sea ports 5/11, ditto along the land frontier 3/11½; **Sal.** 5% a v, **S.** 1/; **Sn.** Free; **Sz.** 2d; **T.** 8% a v; **US.** Coal anthracite free, bituminous and shale 3/1½, other kinds and slack 1/3, coke 20% a v, patent fuel consisting of a composition of culm, of coal and coal-tar pitch, coal-tar pitch being the component material of chief value 20% a v. **Ur.** Coal 6% a v; **Ven.** 1st. class.

- Cocoa (prepared) and Chocolate, per cwt.**—**A.** Cocoa ground, paste and chocolate £2 10s 10d; **B.** 18/3; **Br.** 600 and 30% per kilo, cocoa butter chocolate 600 and 30%; **C.** Chocolate 35% a v; **D.** Cocoa powder, paste, and chocolate 16/6; **F.** Chocolate £1 17s 9d, cocoa ground £2 14s 10d; **G.** Cocoa prepared and chocolate £2 0s 8d; **Gr.** Cocoa free, ditto ground paste and chocolate £4 10s; **H.** Chocolate prepared with sugar £1 1s 2d, all other kinds free; **I.** Cocoa 57/8½ cocoa in the berry, 40/7'68, crushed, ground or in paste 50/9'6; **Nic.** manufactured 4d lb; **N.** cocoa in powder, cakes or lumps and chocolate £1 2s 7d; **P.R.** Per kilo, 3s cts. **P.** Per kilo, cocoa and husks of the same 30 r, chocolate 130 r; **R.** Cocoa ground or in tablets £1 4s 5d, cocoa paste £1 8s 5d; chocolate £1 4s 5d; **Rus.** Cocoa ground without sugar £2 14s 2d, chocolate £3 18s 10d, with an addition of 20% on each rouble of duty leviable; **S.** Cocoa, caracas and the like £1 7s 2d, Guayaquil and the like 19/9½, *transitory duty in addition to the above* 6/6, chocolate £1 6s 5d; **Sn.** Cocoa 16/11, chocolate £1 8s 3d; **Sz.** Cocoa 7½d, ditto in powder and chocolate 6/6; **T.** 8% a v; **US.** Cocoa prepared and chocolate 9/4, "Lombart" chocolate put up in boxes and not intended for table use 50% a v; **Ur.** Chocolate 44% a v, in paste 0'30 per kilo.

- Coffee.**—**A.** Raw £2 0s 8d per cwt, imported by sea £1 17s 7½, roasted £2 10s 10d; **B.** 4/0½, roasted 5/3½; **D.** Raw 14/1½, roasted, and coffee substitutes 16/5½; **F.** Husks and berries £3 3s 5d, roasted, or

Coffee—*continued.*

ground £4 4s 6½d; **G.** Raw £1 0s 4d, roasted or ground £1 5s 3d; **Gr.** Raw or roasted £1 5s 7½d; **H.** Free; **I.** Raw £2 16s 12d, roasted £4 1s 3½d, chicory 3/3; **N.** Raw £1 2s 7d, roasted and chicory 19/9; **P.** Husks and berries from Portuguese possessions 18/3½, husks and berries from all other places £1 14s 3½d, roasted or ground and chicory £2 14 10½; **Rus.** Coffee and chicory £1 9s 7d; **S.** All kinds, conventional tariff 17/10½, general tariff £1 0s 4d, ditto transitory duty 10/11½; **Sn.** Raw 14/8, roasted and chicory 19/9; **Sz.** Raw 1/5, roasted 1/10, chicory 3/3; **T.** 8½ a v; **US.** Free.

Coke.—See Coal, Cinders and Patent Fuel.

Combs.—See Indiarubber and Gutta Percha.

Confectionery, per cwt.—**A.** £2 9s 8d; **Ar.** Biscuits of all kinds 9 cts per kilo;

B. Sweetmeats (see Sugar, Refined), other kinds 10/2; **Br.** 500 per kilo and 30%, jams 100 per kilo and 30%, chrystallized jams 850; **C.** Confectionery, conserves in sugar, sugar of all kinds 35% a v; **Ch.** Almonds 0'4'5'0 per pecul, biscuits all kinds free, preserves, comfits and sweetmeats, 100 cattles 0'5'0'0; **D.** 16/6; **F.** Without sugar or honey 3/3, preserved with sugar or honey and marmalade 11/1, sweetmeats £1 3s 7d; **G.** £1 10s 6d; **Gr.** £4 16s; **H.** £1 1s 2d; **I.** Plain biscuits 16/3, confectionery and preserves with sugar or honey £1 16s 2d, bread and 'ships' biscuits 3/7½; **M.** Sweets of all kinds l.w. 1'00; **Nic.** Confectionery and all kinds of sweets 5d per lb.; **N.** Cakes, biscuits and preserves £1 2s 7d, other kinds £1 6s 4d; **P.** In syrup 17/5, dry £1 11s 2d; **R.** Bon-bons, syrups, &c. £4 1s 3d, fruit preserved in sugar, or honey preserves, marmalade, &c., £2 12s 10d; **Rus.** Cakes and biscuits, g w £1 14s 6d, other kinds £3 18s 10d; **S.** £1 14s 6d; **Sn.** £1 6s 6d; **Sz.** Cakes 2/2 82, biscuits and fancy pastry without sugar 6/1'15; **T.** 8% a v; **US.** Comfits, sweetmeats or fruits preserved in sugar, spirits or molasses 35% a v, other confectionery valued at 30 cents or less per lb £2 6s 8d per cwt, ditto above 30 cents, or when sold otherwise than by the pound 50% a v, confectionery, such as fruit tablets, flavoured with lime, lemon, orange, &c., and which is thereby more or less coloured by the flavouring extracts 5d per lb; **Ur.** Biscuits all kinds, and sweetmeats 44% a v.

Cooked Beef.—See Beef, Salted.

Copper and Brass.—See Brass and Copper.

Copper Sheets.—See Brass and Copper.

Copper Wares.—See Brass and Copper.

Copperas, per cwt.—**A.** Sulphate of iron (green copperas) 2½d, other kinds 1/6½; **B.** All kinds free; **Ch.** 1 mace per pecul; **D.** All kinds free; **F.** Sulphate of copper 1/2½, sulphate of iron 3½d; **G.** All kinds free; **Gr.** Free; **H.** All kinds free; **I.** All kinds 9½d; **N.** All kinds free; **P.** All kinds 7½d; **R.** Free; **Rus.** Green copperas 2/2, other kinds 4/11 with an addition of 20% on each rouble of duty leviable; **Sal.** 1½d per lb; **S.** Sulphate of iron (green copperas) 7½d, other kinds 4'0½; **Sn.** All kinds free; **Sz.** All kinds 1½d; **T.** 8% a v; **US.** Sulphate of iron 1/5, sulphate of copper 14/.

Cordage and Twine, per cwt.—**A.** Ropes, cables, cords, also bleached, tarred 5½ per 100 kilos, all other ropemaker's wares 18½. (NOTE.—Cocoa and similar fibres twisted into ropes for the manufacture of mats, &c., when fulfilling all conditions imposed by Government on receiving a permit, free.) **B.** Cordage free; **Br.** Of cotton, in pieces, 120 per kilo and 30%, manufactured 150 per kilo and 30%, of linen 250 per kilo and 30%; **C.** Old free; **Ch.** Manilla 100 cattles 0'3'5'0; **D.** 2'4½; **F.** Of esparto grass, lime tree bark and reed 1/6½, other, measuring 2,000 metres or less, of single thread, to the kilogramme 6/1; **G.** Bleached or tarred 5/1, other kinds 12/2; **Gr.** Tarred or not 8/1, of esparto grass 3/2½; **Hay.** Ropes 6/3, twine 14/; **H.** Cordage free; **I.** Of esparto, linden (*tiglio*) and the like 7'3½d; **J.** 1 Boo 25 cents per 100 cattles; **M.** Ropes of aloes and hemp up to 3 centimetres in diameter or 94'2 millimetres in circumference free, iron and steel wire cables of any thickness free; **Ni.** Ropes, &c., cables and rigging, and other cordage free; **N.** Tarred and untarred ropes and twine over two millimetres in diameter free, other kinds 1'8½; **PR.** Tackle and cordage 5 pesos 80 centavos per 100 kilos; **P.** Cordage, ropes, cables, and other articles for shipping, except metals, 80 r per kilo; **R.** Cordage 18/3, twine £1 9s 2½d; **Rus.** 4/4 with an addition of 20% on each rouble of duty leviable; **Sal.** g w 7½d per lb; **S.**

Cordage and Twine—continued.

7/8; **Sn.** Cordage free, twine and string 11/4; **Sz.** Twine 6/6, cordage 1/2½; **T.** 8% a v; **US.** Cordage, manilla untarred 11/8, other kinds untarred 16/4, all kinds tarred 14/, twine 40% a v; **USC.** Cords for bridle rein (cotton) 10d, tarred cords and ropes 2½d, other 1/8 per kilo.; **Ur.** Rope and twine less than 2in thickness 20% a v.

Corduroys.—See Woven Manufactures.

Corned Beef and Pork.—See Beef, Salted.

Cotton, Yarns and Thread.—See Yarns and Thread (Cotton).

Cotton (Woven Manufactures).—See Woven Manufactures (Cotton).

Counterpanes.—See Woven Manufactures.

Cretons.—See Woven Manufactures.

Curtains.—See Woven Manufactures.

Cutlery.—See Iron and Steel.

Damasks.—See Woven Manufactures.

Dimities.—See Woven Manufactures.

Distilling Apparatus.—See Brass and Copper; also Iron and Steel.

Drain Pipes.—See Earthenware and Porcelain.

Dredges.—See Ships and Boats.

Driving Gloves.—See Hides and Skins.

Drugging.—See Woven Manufactures.

Drying Oils.—See Grease.

Earthenware and Porcelain, per cwt.—**A.** (a) All most common earthenware not otherwise specified, bricks, tiles and earthen pipes, stoves and architectural ornaments of earthenware or terra-cotta free, (b) graphite vessels, gas retorts, crucibles, pipes, plates, jars and vessels for manufacturing purposes, of common stoneware or fireclay 6d, (c) stoves and parts of stoves, and tiles for floors and walls other than of common earthenware 3/0½, (d) earthenware included under (a) and (b) combined with wood and iron not polished or varnished 2/0½, (e) earthenware not otherwise specified, (1) of one colour or white 5/1, (2) of two or more colours bordered, painted, printed, gilt or silvered 8/2, (f) porcelain, white 7/1, (g) (1) porcelain of all other kinds, plain or in combination with other materials 15/3, (2) fine earthenware of all kinds in combination with other materials 15/3; the new tariff makes the following changes—Common bricks (roof or wall) and earthen pipes, not glazed, free, glazed bricks and gutter tiles 6d per cwt, Chamotte goods, bricks of ordinary size each weighing up to 5 kilos, 6d, others 1/, paving materials and pipes made of common stone, also pipes made of glazed earth 1/; **B.** Crucibles and retorts, bricks, tiles and drain pipes, also paving tiles free, common earthenware 7½d, fine earthenware and porcelain 10% a v; **Br.** Medical instruments not otherwise distinguished, and parts 2,600 r, toys (children's) 1,000 r to 3,200 r, pipes, cigar and cigarette holders, of clay or porcelain, with tubes of horn or wood 650 r; **C.** Earthenware, fine, porcelain 35% a v; **Ch.** Coarse chinaware 0'4'5'0, per 100 catties, fine 0'9'0'0 pottery earthenware 0'0'5'0; **Cor. D.** **Cor.** Common stone and chinaware 7½%, fine 10% a v; **D.** Bricks, paving bricks, tiles and earthen pipes free, pottery of common earth as gas retorts, crucibles, &c., including graphite crucibles 6½d, ditto other kinds 2/4½, earthenware or stoneware (faience) terra-cotta or terralith, and tobacco pipes, gilt or silvered, with real or false gold or silver 18/10, other kinds 7/1, porcelain, coloured, gilt or silvered £1 17s 8d, other kinds 18/10; **E.** 6d per kilo; **F.** Bricks, tiles and drain pipes, common; crucibles and gas retorts, common earthenware, plain, glazed or not free, ditto glazed with decorations in bas-relief of one or more colours, flat or hollow 2/0½, stoneware apparatus and articles for the manufacture of chemical products free, common, flat or hollow, as bottles, plates, flasks, household and kitchen utensils, &c. 1/7½, other plain and ornamental ware of fine paste, washed and baked 3/3, tiles, decorated or not, of different paste, grain or colour 1/2½, tiles, not decorated, of one colour, paste and grain throughout 4½d, chinaware stanniferous, of coloured paste, with white and coloured glaze, with plain moulded ornaments, of one colour, not finished by hand free, with coloured glaze, printed or painted by hand or moulded in relief and finished by hand 4/10½, fine, white or coloured, with a glaze of one uniform colour 3/3, painted and decorated, of one colour 3/3, of several colours 4/10½, porcelain, white, insulators 2/10½, ditto other kinds 4/0½, decorated, also parian or biscuit, white or coloured 8/2, decorated and of extra thickness 4/10½; **G.** Common bricks, tiles, pipes, and pottery unglazed free, firebricks 3d, glazed tiles and bricks, paving tiles, architectural ornaments, also of terra-cotta, glazed pipes, pans, jars,

Earthenware and Porcelain—continued.

- and other vessels of common stoneware, common stove tiles, earthenware tobacco pipes, glazed pottery 6d, crucibles, retorts, fire-proof pipes and plates 1/, other earthenware, except real or imitation porcelain, (1) of one colour or white 5/1, (2) of two or more colours, bordered, printed, painted, gilt or silvered 8/2, (3) in combination with other materials (provided such articles cannot be classified under the head of small ornamental wares) 8/2, (4) fine terra-cotta wares 5/1, porcelain and wares resembling porcelain (parian, jasper, &c.), (1) white 7/1, (2) coloured, bordered, printed, painted, gilt, silvered, also in combination with other materials (provided such articles cannot be classified under the head of small ornamental wares) 15/3; **Gr.** Earthenware of all sorts unglazed free, ditto glazed 1/3d, chinaware, white or of one colour, plain or with impressed designs 4/5d, ditto of more than one colour or with gilding, designs in relief or other ornamentation 16/, porcelain, common white articles 16/, gilt or otherwise coloured or ornamented £3 4s; fancy and artistic china £11 4s; **Hi.** All kinds 10%, bricks free; **Hay.** Brick 1/3 per 1000, stoneware, per crate, 1 to 3 ft 4/4 each, 3 to 5 ft 16/8 each, per hoghead 20/10 each, chinaware, white and ordinary (as stoneware) fine 1½d per piece;
- H.** H. Bricks and roofing tiles and crucibles free, moulds for sugar baking 5% a v, earthenware and porcelain of all kinds not otherwise enumerated, including earthenware pipes for water supply, drain pipes, &c., 5%; **I.** I. Bricks, tiles, drainpipes, etc. 1½d, square roofing tiles of Marseilles and Paris patterns and hollow bricks 7½d, pottery (terra-cotta), square tiles or bricks glazed or enamelled 1/2½d, crucibles, oil jars, stoves, and similar coarse manufactures 1/2d, statues and ornamental ware 7/3d, majolica or wares of coloured clay covered with enamel or opaque varnish-tiles, slightly coloured and coarse stone wares 2/5d, white or coloured or plain ground 4/0d, variously coloured or decorated 5/10, earthenwares or wares of white clay, white and fine stoneware 7/3d, coloured, gilt or otherwise decorated 10/2, porcelain white, 7/3d, gilt or otherwise decorated 14/2d; **M.** (per kilo). Manufactures of alabaster, marble or stucco, not elsewhere specified g w 0/20, manufactures of plaster of Paris or clay, not elsewhere specified, g w 0/15, bricks, other than fire-bricks 1/80 per 1000, stone mosaics for pavements g w 0/01 per kilo, whetstones and flints g w 0/05, gypsum g w 0/10; **Ni.** Earthenware (baked) and porcelain 6% a v, tiles and bricks free; **Nic.** 4d per lb, brick 2-5d per lb; **N.** Crucibles, mortars, filtering plates, retorts, telegraph insulators, galvanic pans, drain pipes, stoves and stove pipes water pipes, &c, bricks and unglazed tiles 5/6d per 1,000, fine stoneware, terra-cotta and terralith 3/11d, porcelain and biscuit glazed tiles 8/11 per 1,000, common pottery and stoneware (crocery) unglazed and unpainted free, other kinds 1/10d, chinaware (faience) and china of all kinds 13/; **Per.** Earthen, stone and chinaware 45% like articles 1 peso 15 per 100 kilos, stoneware and fine clay 5 pesos, **PR.** Tiles, coloured, for floors and walls, bricks, roof tiles, pipes, and like articles 1 peso 15 per 100 kilos, stoneware and fine clay 5 pesos, porcelain 9 pesos; **P.** Earthenware 100 r per kilo, porcelain 220 r, ceramic products, not distinguished 2 r, firebricks free; **R.** Common pottery, including bricks, drain pipes tiles, &c. unglazed 9½d, common earthenware or stoneware, varnished or unvarnished 6/1d, chinaware (faience) of all kinds, white or coloured, printed, gilt, silvered or not, plain or with designs or ornaments in relief 6/1d, porcelain of all kinds, white or, coloured with one or several colours, printed, gilt, silvered or not, plain or with designs or ornaments in relief 12/3, fancy articles in porcelain, biscuit and faience, such as vases, statuettes, inkstands, &c., candlesticks, lamps and similar articles, plain, painted or gilt, or combined with bronze, carved wood, mosaic, &c. £5 1s 7d; **Rus.** Common earthenware and stoneware, as bricks, fire-bricks tiles, slabs, drainage and water pipes 3½d per cwt, ordinary bricks 1½d, pottery ware or stoneware of common clay, coloured or gilt for the decoration of rooms 10/10, other kinds, as household utensils, &c. 2/2, earthenware (china) white and of one colour, dyed in the paste without ornaments, except a moulded pattern 8/4, with patterns, rings, borders and edges of one colour 10/10, painted or with gilt or variegated patterns £1 7s 1d, porcelain vessels, white or of one colour and with coloured or gilt edges or borders, but without other ornaments £2 3s 4d, ditto painted or with coloured or gilt patterns, arabesques, flowers or other ornaments £4 6s 8d, articles of porcelain, such as vases, statuettes, candlesticks table ornaments, &c. white or of one colour £4 6s 8d, painted, gilt or

Earthenware and Porcelain—continued.

- with bronzed ornaments £8 13s 5d. NOTE—(1) Crests and cyphers are not considered ornaments, (2) packing cases in which china, &c. is imported, pay duty according to the material of which they are made with an addition in each case of 20% on each rouble of duty leviable;
- Sal.** Sal. Per lb, Earthen, stone, and china ware, ordinary g w 2½d, imitation porcelain g w 3d, fancy ware g w 7½d; **S.** Roofing tiles and bricks for building purposes 5½d per ton, tiles for walls and floors, glazed, tubes, drain pipes, &c. 7½d per cwt, stoneware and fine earthenware 10/9, porcelain 15/3; **Sn.** Earthenware, tiles, paving, not exceeding three-quarters of an inch in thickness 1/8½ ditto other kinds and bricks free, earthenware and terra-cotta not otherwise specified 3/11½, stoneware or chinaware, white or of one colour, not painted 5/8, painted or printed 9/, porcelain, white or of one colour 13/7, gilt or painted with figures or flowers £1 6s 6d; **Sz.** Common bricks, pipes, plates, flags, not otherwise mentioned 0'48d, fire-proof bricks, tiles, flagstones of common grey 2'44½d, tiles, bricks, smoked, slated, varnished, balusters and architectural ornaments not otherwise mentioned 9½, pipes, plates, squares, oiled, varnished or grey, not otherwise mentioned not painted, without stamped designs, not polished, plain, or simply channelled, without raised ornaments, gas brackets from 0'48½d to 9½d, common earthenware with grey or red fracture, glazed or not, common grey pottery, crucibles, earthen pipes 9½d; **US.** Bricks, fire bricks, roofing and paving tiles and large stoneware vessels 20% a v, encaustic tiles 35%, brown earthenware and common stoneware not ornamented, gas retorts, &c. 25%, earthen, china, porcelain and parian ware, white, not decorated 55%, coloured, gilt or in any way decorated 60%, tobacco pipes, common 35%, ditto pipe bowls 70%, small oval porcelain plaques and various heads and devices painted upon them, suitable and intended for use in the manufacture of jewellery 60%; **USC.** (per kilogram). Common earthenware and stoneware in any form 5d, porcelain ware and chinaware 10d, empty jars or pots, bottles, flasks, or small flasks of earthenware for filling, and in general common pottery 1½d, tubes, pipes, and channels for pumps, drains, and roofs 2½d. **Ur.** tiles for roofing or flooring and plain tiles 20% a v;
- Ven.** Ven. and class tiles, bricks, 3rd class tobacco pipes, pottery not specified, 4th class flower pots, porcelain, chinaware and imitations, 5th class toys, images, inkstands, paper-weights.

Electric Lamps and Machinery.—**A.** £2 10/ per cwt; **B.** machinery, cast iron, 9½d per cwt, if wrought iron or steel 1/7½; if copper 4/10½, lamps 10% a v; **D.** Lamps and dynamos 10% a v; **F.** Machinery weighing less than 30 kilos free, if less than 50% of cast iron 6/1 per cwt, from 50 to 75% of cast iron 4/0½, 75% and above of cast iron 2/5½, incandescent lamps 7/6½, accessories 8/2; **G.** Machinery, if principally of cast iron 1/6½ per cwt, if wrought iron 2/6½, if other metal 4/0½; **Gr.** Lamps 15/3, machinery free, lamps £1 12/; **H.** Machinery free, lamps 5% a v; **I.** Machinery to 20-horse power 10/2 per cwt, over 20-horse power 6/6, lamps 12/2; **N.** Machinery free, lamps according to material of which made; **P.** Machinery if entire 3/5½ per cwt, if in pieces 5/8½, lamps, if glass, £1 5s 2d; **R.** Lamps £4 3s per cwt, dynamos £1 14 6d; **S.** Dynamos 3/3 per cwt, lamps, glass, 14/1, porcelain 15/3; **Sn.** Same as Norway; **T.** 8% a v; **US.** Machinery and lamps 45% a v.

Embroidered Wares.—See Woven Manufactures

Encaustic Tiles.—See Earthenware and Porcelain.

Engravings.—See Paper, &c

Epsom Salts, per cwt.—**A.** 4/0½; **B.** Free; **D.** Free; **F.** Free; **G.** Free; **Gr.** Free; **H.** Free; **I.** 7½d; **N.** Free; **P.** 5% a v; **R.** 4/1; **Rus.** 1/5½; **S.** 2½d; **Sn.** Free; **Sz.** 1½d; **T.** 8% a v; **US.** 2/4.

Felt Hats.—See Hats.

Firearms.—See Iron and Steel.

Fire Bricks.—See Earthenware and Porcelain.

Fireclay.—**A.** Free; **B.** Free; **D.** Free; **F.** Free; **G.** Free; **Gr.** Free; **H.** Free; **I.** 1d per cwt; **N.** Free; **P.** Free; **R.** 1d cwt; **Rus.** Free; **S.** 6d per ton; **Sn.** Free; **Sz.** Free; **T.** 8% a v; **US.** 6/3 per ton.

Fire Engines.—See Iron and Steel.

Fish, per cwt.—**A.** Fresh, except shell-fish, free, shell-fish 10/2 salted, smoked or dried 3/0½, caviar £2 10s, fish prepared in casks 15/3, fish

Ar. preserved in cases, bottles, &c. £2 0s 8d; **Ar.** Fresh free; **B.** All kinds free; **Br.** Per kilo, gold, silver, and fancy fish 1'00 each, not otherwise specified free, fish not otherwise mentioned, shell-fish,

Fish—continued.

- oysters, and other molluscs, and fish ova '50, dried, salted, or in brine '50, fresh, in ice '50, preserved and prepared in any manner '600; **C.** Dried 35% a v; **Ch.** 100 catties salt 0'1'8'o, maws 1'0'0'o, skins 0'2'0'0; **Cor.** fresh 5%, dried 7½% a v; **D.** Fish, fresh oysters 3/6½, ditto other kinds free, salted or smoked, dried or otherwise preserved, anchovies, lampreys, salmon, sardines, caviar, mussels and oysters 7/1, other kinds 8½d; **E.** 1/0½, codfish 2½d per kilo; **F.** Lobsters fresh 2/0½, ditto preserved 4/0½, mussels and other shell-fish except oysters, free, oysters fresh, young (Naissain) free, ditto other 1/2½ per 1,000, ditto preserved 4/0½ per cwt, cod, dried, salted or smoked 19 6, other kinds of sea fish, fresh 2/0½, ditto smoked, salted, dried or preserved 4/0½, fresh-water fish fresh free, ditto dried, salted, smoked or preserved 4/0½; **G.** Fish fresh (except shell-fish) free, oysters and lobsters £1 5s 5d per cwt gross, other marine shell-fish 12/2 gross, herrings salted (if in the ordinary barrels of commerce) 3/ per barrel, ditto if otherwise packed 1/0½ per cwt, salted in casks (except herrings), dried, smoked or cured 1/6½, preserved in vinegar, oil or spice, in casks 6/1½, preserved otherwise and fish of all kinds in hermetically sealed tins, &c. £1 10s 6d, caviar and substitutes £3 16s 2d; **Gr.** Fresh free, salted, smoked or dried, not otherwise mentioned 9/7½, sturgeons smoked or dried, shrimps, lobsters and other kinds of fish in boxes, prepared for consumption £3 4s, cod and stock fish 6/4½, caviar, black £4 16s, ditto red of all kinds 6/4½, oysters 16s, all other shell-fish 1/7; **Hi.** Free; **Hay.** Codfish 1/8 per cwt, mackerel 2/1 per barrel, herrings, alewives 2/1 per barrel, scalded 3d per box; **H.** In hermetically-sealed vessels £1 1s 2d, other kinds free; **I.** Fresh free, dried or smoked 2/0½, in brine 2/5½, pickled and prepared in oil or tinned 4/0½, caviar and other prepared fish roes 12/2; **Nic.** All kinds 3d per lb; **N.** Fish, sardines and anchovies in oil 11/4, other, salted, smoked or preserved in oil or in air-tight cases £1 2s 7d other kinds free; **Per.** Dry and smoked in case 15%; **PR.** Codfish and stockfish 1 p 18 c, fish fresh, salted, smoked, pickled and shell-fish 1 p 18 c per 100 kilo; **P.** Per kilo, codfish 39 r, sardines salted or pressed 4 r, not otherwise mentioned, unprepared, otherwise than for preservation 3 r, fish not elsewhere specified, salted, pressed, smoked, or pickled 10 r; **R.** Fish, fresh, salted, smoked or dried, except those specified below 18/3, mackerel, stock fish and herrings 6/1½, salmon and salmon-trout smoked, also lobsters, oysters and other fish preserved in oil or vinegar £2 2s 10d, tunny in brine 10/2½, sardines in kegs 4/1, preserved fish roe £5, caviar, fresh, of all fish £1 12s 6d, ditto not distinguished 8/2, lobsters and oysters fresh 12/2, mussels and other shell-fish 2/0½; **Rus.** Fish fresh (except shell-fish), imported in Russian ships free, ditto foreign ships 11½d per cwt gross, marinated and prepared in oil, also caviar £1 19s 5d, salted and smoked, except herrings 11/10, herrings salted or smoked, cod and all other fish kippered or air-dried 2/2, oysters, lobsters, crabs, mussels 19/8, if imported in hermetically-sealed vessels £1 19s 5d; **Sal.** **S.** In tins, g w 5½d, dried or salt, g w 3½d per lb; **S.** Fresh fish or with such an amount of salt as is indispensable for their preservation 7½d per cwt, dried cod fish and stock fish, import duty 5/2, ditto transitory duty 1/2½, salted, smoked or pickled, except sardines salted 2/0½, sardines salted 9½d, shell-fish 4½d; **Sn.** Fish fresh free, salted or preserved anchovies and sardines, tunny fish 11/4, salted or preserved other kinds free; **Sz.** Fresh 1/0½, salted, smoked, dried or prepared in any other manner, in cases of 5 kilos or more in weight 9½d, ditto in cases or packages of less than 5 kilos in weight 6/6, oysters, lobsters, mussels, &c., fresh 12/2; **T.** All kinds 8% a v; **UR.** Fish in brine per case or barrel 0'10 per kilo, dried 0'05; **US.** Mackerel 4/8, herrings pickled or salted 2/4, salmon pickled 4/8, other kinds not in barrels, including fresh fish 2/4, ditto pickled in barrels 4/8, fish preserved in oil, except anchovies and sardines 30% a v, fish prepared or preserved otherwise than in oil, not specially mentioned 25%, shrimps, oysters and other shell-fish fresh free, anchovies and sardines packed in oil or otherwise, in tin boxes measuring not more than 5 inches in length, 4 inches in width and 3½ inches in depth 5d per box, in ½ boxes measuring not more than 5 inches in length, 4 inches in width and 1½ inches in depth 2½d, in ¼ boxes measuring not more than 4½ inches in length, 3½ inches in width and 1½ inches in depth 1½d, in any other form 40% a v; **USC.** **Ven.** In pickle, other, per kilo, 2½d; **Ven.** 3rd class fish, salt or smoked, sardines,

- Flannel.**—See Woven Manufactures.
Floor Cloth.—See Indiarubber and Gutta Percha, also Woven Manufactures.
Foulards.—See Woven Manufactures.
Fringes.—See Woven Manufactures.
Furnaces.—See Iron and Steel.
Furniture.—See Household Furniture.
Fustians.—See Woven Manufactures.
Galloons.—See Woven Manufactures.
Galvanised iron.—See Iron and Steel.
Garden Seats.—See Iron and Steel.
Gauzes.—See Woven Manufactures.
Gin.—See Spirits.
Girths.—See Woven Manufactures.
Glass and Glass Wares, per cwt.—**A.**—Hollow wares of natural-coloured glass, but not white, not pressed, not polished, figured or ground $2/0\frac{1}{2}$, mirror glass, rough and unpolished, also glass in rough masses, cast sheets, rough and ribbed, tubes, rods and plates without distinction of colour, for blowing or making beads or buttons, glaze and enamel in masses, optical glass, not cut in lenses, rough, unfinished $1/6\frac{1}{2}$, white hollow glass, transparent, not figured, pressed, ground, or polished, and hollow glass of natural colour, or white with ground stoppers, bottoms, or rims $4/0\frac{1}{2}$, pendants, buttons, coral, pearls, beads, &c., coloured or not $2/0\frac{1}{2}$, window glass in natural tints (green or half or wholly white), not polished or figured $4/0\frac{1}{2}$, white hollow glass, transparent, pressed, polished, ground, cut, figured, or engraved, also heavy white glass not specially enumerated $8/2$, glass, coloured, not otherwise specified, painted, gilt, or silvered, false jewellery, not set, all polished, silvered, or figured plate-glass and mirrors framed $12/2$, glass and enamel wares not otherwise specified, combined or not with other materials, provided they do not come under the head of small ornamental wares, $12/2$, optical and watch glasses finished and polished, $\text{£} 1$ 10s 10d; **B.** Common bottles, &c., $4\frac{1}{2}$ d, other kinds 10% a v, broken glass free; **Br.** Children's toys 1,000 to 3,200 r, mirrors, with frames, small, from 450 r to 3,200 r, other, not distinguished 48% a v, bottles, glasses, and graduated measures for use in pharmacy 550 r; **C.** Looking-glasses 25% and 35% a v, bottles, jars of all kinds 15% a v; **Ch.** Glass and crystal ware free, glass, window, per box 100 sq. feet 0'1'5"0, glass armlets, beads, and vitrified ware 100 cetties 0'5'0"0; **Cor.** Window $7\frac{1}{2}\%$, plate and manufactures 10%, beads 30% a v, **D.** Glass, unpolished, in sheets or panes, window glass, patent or skylight glass, common green or brown hollow ware, as bottles, milk-pans, or retorts, and rough, unpolished plate-glass $3/6\frac{1}{2}$, polished plate-glass, unsilvered, in sheets measuring up to 800 Danish square inches $18/10$, ditto from 800 to 1,800 Danish square inches $\text{£} 1$ 8s 3d, ditto 1,800 Danish square inches and above $\text{£} 1$ 17s 8d, silvered plate-glass, polished or not (including weight of frames) 25% above the duty on unsilvered glass wares, combined with metal, also polished glass-flux drops, beads, &c. $\text{£} 1$ 17s 8d, other kinds $16/6$; **E.** Glass 6d, bottles 1d, all other manufactures 6d, eyeglasses of all descriptions $4/2$ per kilo; **F.** Bottles, full or empty, all kinds $1/2\frac{1}{2}$, window glass $1/5$, ditto coloured, polished or engraved $6/1$, watch and optical glasses, rough $6/1$, ditto cut or polished $\text{£} 3$ 0s 7d, table glass, white or of one colour, plain or moulded $1/5$, ditto cut or engraved $4/0\frac{1}{2}$, ditto decorated with gold or colour $10/2$, plate-glass of less than $\frac{1}{2}$ square metre, polished, silvered or not $8/2$, ditto of $\frac{1}{2}$ square metre or more, unpolished 8d per square yard, ditto of $\frac{1}{2}$ square metre or more, polished or silvered 2/ per square yard, vitrification and enamel, in masses or tubes $1/6\frac{1}{2}$ per cwt ditto in beads, cut and pierced imitation jewels, &c. $4/10\frac{1}{2}$, spun glass and imitation coral $4/10\frac{1}{2}$, broken glass or cullet free, other kinds of glass or glass wares $7/6$; **G.** Glass and glass wares (a) green and other naturally coloured hollow-glass, not moulded, cut, nor ground, also with common basket covering, glass mass, rough optical glass, rough cast sheets of ribbed glass (for skylights), enamel and glazing in the lump, glass tubes and rods without distinction of colour, such as are used for glass blowing and bead-making $1/6\frac{1}{2}$, (b) white hollow glass, not figured, cut, ground, nor moulded, but with cut or ground stoppers, bottoms, or rims $4/0\frac{1}{2}$ per gross cwt, (c) window and plate-glass in its natural colour (green or partly or wholly white), not cut or figured, when the height and breadth

Glass and Glass Wares—continued.

together are not more than 120 centimetres, $3/0\frac{1}{2}$ per cwt, from 120 to 200 centimetres $4/0\frac{1}{2}$, over 200 centimetres 5/, (d) 1, mirror glass, rough, uncut $1/6\frac{1}{2}$ per cwt, 2, plate, window, and mirror glass, cut, polished, figured, frosted, or coloured, silvered plate-glass of all kinds $12/2$ per gross cwt, (e) pendants to chandeliers, glass buttons, coloured or not, massive white glass not otherwise mentioned, moulded, pressed, cut, polished, ground, engraved, or figured glass, not included in d and f $12/2$. (NOTE.—Small glass plates, pearls, bugles, and drops of glass, coloured or not, $2/0\frac{1}{2}$). (f) Coloured, not included in a, d, and e, painted or gilt glass, paste (imitation jewels), not set or cut, glass and enamel wares, in combination with other materials, provided they cannot be classified under the head of small ornamental wares $15/3$. Opal and alabaster glass, not figured, cut, ground, painted, nor moulded, with or without cut

Gr. or ground stoppers, bottoms, and rims $5/1$, broken glass free; Gr. common bottles, not white, $1/11$, window glass, common, $6/4\frac{1}{2}$, coloured, polished, or engraved $9/7\frac{1}{2}$, glass wares not specially mentioned white or moulded of one colour $9/7\frac{1}{2}$, ditto, turned or cut $16/$, ditto, gilt or coloured, including crystal not otherwise mentioned, $\text{£}1\ 5s\ 7d$, plate-glass $12/9\frac{1}{2}$, watch glasses, glasses for optical instruments $\text{£}4\ 16s$, beads, stones for jewellery, pendants for lustres, &c., $\text{£}1\ 12s$, articles of glass, in combination with other materials not specially mentioned 20% a v, small looking-glasses for soldiers, peasants, &c., framed in common wood, brass, or other common metal, $16/$, ditto with gilt or other frames $\text{£}1\ 12s$, looking-glasses unframed:—

With surface up to $\frac{1}{2}$ square metre	.....	£1 12 0
" " 1	"	1 18 5
" " $1\frac{1}{2}$	"	2 4 10
" " 2	"	2 11 2
" " $2\frac{1}{2}$	"	2 17 7
" " 3	"	3 4 0
" " $3\frac{1}{2}$	"	3 10 5
" " 4	"	3 16 10
" above 4	"	4 3 2

- NOTE.—Looking-glasses with frames are chargeable with double Duty. **HI.** **Hay.** Tumblers, fine, with covers $1/0\frac{1}{2}$ each, large $2/1$ per doz, medium $1/0\frac{1}{2}$, small 6d, common $1/0\frac{1}{2}$, goblets, fine $3/1\frac{1}{2}$, chimneys $1/0\frac{1}{2}$, watch glasses $10/5$ per gross, spectacle glasses $6/3$ per gross, shades for chandeliers, fine $6/3$ per pair, common $2/1$, for candlesticks $2/1$, vases for flowers, ornamented $6/3$ per pair, plain $2/1$, window pictures, &c., 20% a v; **H.** Glass and glassware all kinds, and mirrors silvered or not 5% a v. (NOTE.—(1) glass shades for clocks, artificial flowers, &c., and globes for lamps, &c., are not charged with the duty on glass when imported with the articles to which they belong, (2) wine bottles may be imported free of duty in bond, to be filled for re-exportation; broken glass free.) **I.** Sheet glass or crystal (a) not polished: Common glass for windows, measuring in length and breadth united: (1) less than 120 centimetres $3/3\frac{1}{2}$, (2) from 120 to 200 centimetres $4/5\frac{1}{2}$, (3) more than 200 centimetres $5/3\frac{1}{2}$, other, including roofing and paving glass even when not entirely opaque $3/3$, (b) polished: not silvered, measuring in length and breadth united: (1) not more than 160 centimetres $8/11\frac{1}{2}$, (2) more than 160 centimetres $11/4\frac{1}{2}$, mirrors, framed, and sheets of mirror glass polished and silvered (including weight of case) measuring in length and breadth united: (1) not more than 160 centimetres $16/3$, (2) more than 160 centimetres $\text{£}1\ 0s\ 3\frac{1}{2}d$, glass and crystal wares: simply blown or moulded, not coloured, ground, or cut $3/4\frac{1}{2}$, coloured, tinted, cut, or ground $6/1\frac{1}{2}$ enamelled, painted, gilt, silvered, or otherwise decorated $7/3\frac{1}{2}$, marked to indicate measures or degrees $12/2\frac{1}{2}$, bottles, common $1/8\frac{1}{2}$, demi-johns $2/5$, broken glass free, glass, crystal and enamel, in form of pearls, cut as gems, or in pendants for chandeliers and other similar wares $12/2\frac{1}{2}$, vitrifications and enamel in cakes, sticks, or powder $2/0\frac{1}{2}$; **J.** 53 cents per box of 100 sq feet; **NI.** Glass and glass work of all descriptions 10% a v; **Nic.** In sheets, bottles, drinking glasses, and lamp tubes 2d per lb., candelabra, lustres, flower vases, and the like 4d, physical, surgical, and chemical free, looking glasses, all kinds 5d; **N.** Common bottles or flasks not cut or ground free, plate or sheet glass silvered, including mirrors $13/$, not silvered, but cut and painted, gilt, varnished, engraved, polished or figured $7/4$,

Glass and Glass Wares—continued.

- other kinds $3/4$, patent and skylight glass free, milk-pans, pickle-jars, retorts, and telegraph insulators free, optical and burning glasses, unset enamel ditto free, other glass wares, including flasks covered with wicker work $15/3$; **Per.** Glass 45% , manufactures 45% a v;
PR. Glassware, hollow, common, or ordinary 4 peso 60 c per 100 kilos, crystal, hollow, and glass imitation 8 peso 05 c, window and plate glass 3 peso 01 c, glass and crystal, quicksilvered, and crystals for spectacles and watches 18 peso 40; **P.** Glass vessels, common, of any colour 20 r per kilo, glass and crystal in polished sheets, with or without frames 27% a v, glass and crystal, manufactured, not otherwise classified 110 r per kilo; **R.** Enamel, glass mass, glass in rods, stems, or unshapen pieces, and in the rough $4/1$, window glass or glass in sheets, green, half white, or entirely white $2/0\frac{1}{2}$, common, *i.e.*, sheet glass of natural colours, green, white or half white, ground or not, engraved, ornamented, cut or painted, coloured, engraved, ornamented, cut, painted or not $£1$ 05 5d, mirror glass not exceeding thirty centimetres in either breadth or length $16/4$, mirror glass exceeding either in breadth or length thirty centimetres $£1$ 12s 6d, table glass of natural colour, black, yellow, half white or entirely white, neither ground, moulded, engraved, ornamented, cut, painted, gilt, nor silvered, nor combined with other materials $6/1$, glass moulded, ground, engraved, figured, but not coloured or cut $8/2$, various articles (except those enumerated under the heading of fancy articles, &c.) of glass of any colour, but neither ground, engraved, moulded, ornamented, cut, painted, gilt, silvered, nor combined with other materials, such as tubes, cylinders, globes and shades for lamps, drops, imitation pearls, bracelets, rings, buttons, &c. $16/3$, articles of coloured glass, such as imitation pearls, corals or jet $15/5$, glass moulded, ground, engraved, figured, but not coloured or cut $8/2$, glass, cut, coloured, painted, gilt or silvered, and pendants for lustres $£1$ 05 4d, fancy articles of all kinds of glass, such as statuettes, inkstands, toilet articles, candlesticks, lamps, and similar articles, combined or not with other materials, except precious metals $£4$ 15 6d; **Rus.** Manufactures of green bottle-glass, plain, with moulded patterns or letters, but not cut or ground $5/5$. * **NOTE.**—Wine bottles are admitted duty free at the ports of the Black Sea and Sea of Azov, and at the custom-houses of the Bessarabian Frontier. Window glass of all kinds, green, half white or white $11/10$, * ditto coloured (dyed in the paste), milk white, dull or reticulated $£1$ 15 8d, * articles of white or half white glass, plain or with patterns, not cut nor ground, but with or without ground bottoms, stoppers, &c. $11/10$, † articles of coloured or double glass, of glass milk white, dull or reticulated, plain not ground or cut, and with or without ground stoppers, &c. $£1$ 15 8d, * cut and polished, or painted, gilt or silvered, with cut or engraved patterns, or with bronze or other ornaments $£4$ 6s 8d, * of white glass or crystal cut or ground, but without ornaments $£2$ 3s 4d, * mirrors or silvered plate glass for mirrors having a superficies of 100 square vershoks or less $£1$ 3s 8d:—

From 101 to	200 square vershoks	.....	$1/1\frac{1}{2}$ square foot†
" 201 "	300	"	$1/5\frac{1}{2}$ "
" 301 "	400	"	$2/2\frac{1}{2}$ "
" 401 "	500	"	$2/11\frac{1}{2}$ "
" 501 "	600	"	$3/4\frac{1}{2}$ "
" 601 "	800	"	$3/8\frac{1}{2}$ "
" 801 "	1,000	"	$4/1$ "
" 1,001 "	1,200	"	$4/5\frac{1}{2}$ "
" 1,201 "	1,400	"	$4/10$ "
" 1,401 "	1,600	"	$5/2\frac{1}{2}$ "

with an addition of $\frac{1}{2}$ cop. per square vershok ($4\frac{1}{2}$ d per square foot) for each additional 200 square vershoks. **NOTE.**—Mirrors, &c., broken in transit, will be charged duty on each piece separately that measures more than 25 square vershoks, calculating the measurement according to the largest rectangular piece that can be cut out of each fragment; broken pieces of 25 square vershoks or less are admitted duty free, glass or mirrors without amalgam are charged 30% less duty than the above, according to size; bugles and beads on strings $17/0$ per cwt, † bugles in articles and set $£7$ 5s 10d, † buttons

Sal. $£3$ 7s †; **Sal.** Beads, g w $1/6\frac{1}{2}$ per lb, coloured or ornamental, g w $2\frac{1}{2}$ d glasses, cups, vases, etc., $4\frac{1}{2}$ d, sheet, g w 1d, for watches $1/6\frac{1}{2}$ per

Glass and Glass Wares—continued.

S. dozen; **S.** Common hollow wares $2\frac{1}{7}\frac{1}{2}$, glass and crystal wares $14\frac{1}{1}$, glass and crystal in plates and sheets $6\frac{1}{6}$, ditto silvered, also glasses for

Sn. spectacles and watches $\text{£}1\text{ }8\text{ }2\text{d}$; **Sn.** Bowls, jars, and flasks entirely uncut $1\frac{1}{4}$, bottles ditto $1\frac{1}{8}$,* or $1\frac{1}{3}\text{d}$ each,* for bottles full or empty (*at option of importer), jars and flasks with cut stoppers, but not otherwise cut, also apothecaries' vessels with embossed marks $5\frac{1}{8}$ per cwt, all kinds of glass for chemical purposes, all kinds of optical glasses, patent or skylight glass free, rough unpolished window or mirror glass $3\frac{1}{11}\frac{1}{2}$ polished, not silvered, of $\frac{1}{2}$ square metre and less in size $8\frac{1}{6}$, above $\frac{1}{2}$ square metre $14\frac{1}{1}$, silvered of $\frac{1}{2}$ square metre and less in size $14\frac{1}{1}$, above $\frac{1}{2}$ square metre $\text{£}1\text{ }2\text{ }7\text{d}$, glass vitrifications, polished or not $\text{£}3\text{ }10\text{ }8$, other kinds of glass-ware, including decanters and pressed and polished flasks $10\frac{1}{9}$;

Sz. **Sz.** Glass for roofing, glass tiles, skylights $2\frac{1}{10}\frac{1}{2}$, window glass, common white $2\frac{1}{10}\frac{1}{2}$, coloured $6\frac{1}{6}$, with designs or ground $10\frac{1}{2}$, blown glass and glasswares, glass rods for industrial purposes, common bottles, &c. of brown, black or green glass $7\frac{1}{4}\text{d}$, common glass-ware, half white $2\frac{1}{10}\frac{1}{2}$, ditto white not polished, or with bottoms or rims slightly polished, and bottles with ground stoppers $3\frac{1}{3}$, fine glass-ware ground, painted or gilt, and all other glasswares not otherwise mentioned $12\frac{1}{2}$, ditto of coloured glass, polished, cut or engraved, and watch glasses $6\frac{1}{6}$, enamel and vitrifications $1\frac{7}{8}$, glass beads $1\frac{7}{8}$, plate glass not silvered, without regard to dimensions $6\frac{1}{6}$, ditto silvered mirrors and looking-glasses less than 18 square decimetres, including frames $6\frac{1}{6}$, of and above 18 square decimetres $12\frac{1}{2}$; carboys of common glass, brown, black, green, or greenish-coloured (semi-white), covered with wickerwork of osier, barked, split, etc. $3\frac{1}{2}\frac{1}{2}$ per cwt, covered with plaits of straw $1\frac{1}{5}$; **T.** **US.** Glass and glasswares of all kinds $8\frac{1}{2}$ a v; **US.** Glass, cylinder, crown or common window, unpolished, not exceeding 10in by 15in square $6\frac{1}{5}$, measuring from 10in by 15in to 16in by 24in square $8\frac{1}{9}$, measuring from 16in by 24in to 24in by 30in square $11\frac{1}{1}$, exceeding 24in by 30in $13\frac{1}{5}$, cylinder or crown glass polished, not exceeding 10in by 15in square $1\frac{1}{4}\text{d}$ per square foot measuring from 10in by 15in to 16in by 24in square 2d , measuring from 16in by 24in to 24in by 30in square 3d , measuring from 24in by 30in to 24in by 60in square 10d , exceeding 24in by 60in square $1\frac{1}{8}$, fluted, rolled or rough plate glass, not exceeding 10in by 15in square $1\frac{1}{4}\text{d}$, measuring from 10in by 15in to 16in by 24in square $1\frac{1}{4}\text{d}$, measuring from 16in by 24in to 24in by 30in square $1\frac{1}{4}\text{d}$, exceeding 24in square by 30in 1d . **NOTE.**—All fluted, rolled, or rough plate glass weighing more than 100 lbs per 100 square feet, will be charged additional on the excess at the same rate. Cast polished plate glass, unsilvered, not exceeding 10in by 15in square $1\frac{1}{4}\text{d}$, measuring from 10in by 15in to 16in by 24in square $2\frac{1}{4}\text{d}$, measuring from 16in by 24in to 24in by 30in square 4d , measuring from 24in by 30in to 24in by 60in square $1\frac{1}{4}\text{d}$, exceeding 24in by 60in square $2\frac{1}{1}$, cast polished plate glass silvered, and looking-glasses not exceeding 10in by 15in square 2d , measuring from 10in by 15in to 16in by 24in square 3d , measuring from 16in by 24in to 24in by 30in square 5d , measuring from 24in by 30in to 24in by 60in square $1\frac{1}{5}\frac{1}{2}$, exceeding 24in by 60in square $2\frac{1}{6}$. **NOTE.**—Mirrors or looking-glasses, when framed, will not be admitted at a less rate of duty than is chargeable upon similar glasses, &c., unframed, and will be liable to a duty of 30% a v on the frames in addition. Bottles, carboys, pickle or preserve jars, &c., of common green or coloured glass, and other plain, moulded, or pressed green or coloured bottle glass not cut, engraved or painted $4\frac{1}{8}$ per cwt. **NOTE.**—If filled, a duty of 30% a v is charged in addition to the duty on the contents. Flint and lime glass bottles and phials, and other plain, moulded, or pressed flint or lime glassware not otherwise mentioned 40% a v, glasswares of all kinds cut, engraved, painted, coloured, stained, gilt or silvered (except looking-glasses and silvered plate-glass) 45%, porcelain and Bohemian glass, chemical glassware, and all other manufactures of glass, or of which glass is the component material of chief value not otherwise specified 45%, imitation gems 10%, glass plates or discs unwrought, for optical instruments free, beads, bugles, and bead ornaments 50%, glass plates or discs unwrought, consisting of pieces of unpolished cylinder glass not exceeding 10in by 15in square $1\frac{1}{2}$ cent. per lb, glass medicine tumblers with a scale cut on the side of each tumbler, and fitted into a morocco case with a cover 45% a v, coloured glass ornaments and beads which

Glass and Glass Wares—continued.

are used almost exclusively in trimming ladies' dresses, bonnets, &c., and not fitted for use in the manufacture of jewellery are dutiable as follows, beads at the rate of 50% a v, and the other ornaments as

- USC.** manufactures of glass at the rate of 45% a v; **USC.** Common demijohns and bottles of black or transparent glass for filling 3d per kilo, empty common flasks and small flasks of glass, plate glass without quicksilver 2½d, looking glasses up to 25 centimetres size 10d, of more than 25 centimetres 1½, beads, pearls, avalorios, beads in form of stones and jewellery, glasses for watches and lenses, and the like 2½, other 10d; **Ven.** 2nd class, bottles (demijohns), 3rd class, flat, unsilvered. 4th class, flat, unspecified, alembics, cruets, candlesticks, flower stands, globes, lamp chimneys, lamps, lanterns, levels, syphons, manufactured (not specified), 5th class, alcoholometers, areometers, liquid measures, cameras, cupping glasses, mirrors, images, inkstands, paper weights, retorts, nursing bottles, plain stereoscopes, 6th class, binoculars and eye glasses (not specified), barometers, beads, artificial eyes, hydrometers, thermometers, hour glasses, microscopes, jet imitations, spangles, spectacles, and telescopes, not containing gold or silver, 8th class, binoculars, eye glasses, spectacles, stereoscopes and telescopes, gold or silver mounted.

Gloves.—See Hides and Skins, also Woven Manufactures.

Goat Skins.—See Hides and Skins.

Gobelin Tapestry.—See Woven Manufactures—Silk.

- Gold and Silver Wares**, per oz troy.—**A.** Gold and silver wares, plain or combined with other materials and jewellery 2¼d, gold and silver leaf and filigree work 1¼d, plated wares 0¼d; **Ar.** Jewellery, gold and silver wares 5% a v, precious stones 2%; **B.** Jewellery free, other gold and silversmiths' work, all kinds 5% a v; **Br.** Gold and silver in bars, powder, or raw state, or broken articles (useless) free; **C.** Gold in powder or paste free, in plates for dentists 15% a v, manufactured as plate 35% a v, in lumps, unwrought, free; **Ch.** Bullion, gold and silver free, imitation gold thread 0¼ 0¾ per catty, ditto real 1¼ 0¼, gold and silver wares 10¼ 0¼ 100 catties; **Cor.** 20% a v; **D.** Wares of gold or silver 2d; **E.** Jewellery, false, of all kinds except gilt or plated 2½ per kilo; gilt, plated, or metal 4½; **F.** Gold leaf 7¼d, silver leaf 5¼d, gold and silver wire 1¼d, gold and silversmiths' wares, all kinds and imitation jewellery 1¼d, plated wares 30d, excise duty in addition, on silversmiths' wares 5¼d, on goldsmiths' wares 9¼; **G.** Wares of gold or silver, plain or in combination with other materials, also gold and silver leaf 2¼d; **Gr.** Gold wares of all kinds 3½, silver wares not gilt or enamelled 7¼d, ditto gilt or enamelled 11¼d; **HI.** Jewellery 10%; **H.** Gold and silver leaf and wire 3% a v, gold and silversmiths' wares 5%; **I.** Gold in ingots, dust and scrap free, rolled, in sheets and spangles, and drawn in wire 3d, wound on silk 3d, in leaves, including the weight of the books, 5¼d in money free, silver in ingots, dust and scrap free, rolled, in sheets and spangles, and drawn in wire 1¼d, wound on silk 3d, in leaves, including the weight of the books 1¼d in money (in coin of the Latin Union) free, goldsmiths' work and gold plate 3½ 80, silver wrought, also gilt or silvered wares 2¼d, jewellery of gold 3½ 80, of silver or silver gilt 6d; **NI.** Gold and silver leaf, gold and silver in bars, ingots or pieces, coined and gold dust free, gold and silver work galloon trimming and thread 10% a v; **Nic.** **Nic.** Gold and silver imitation jewellery 17¼ per lb, jewellery with precious stones £2 19s 7¼d, solid gold and silver jewels £1 14s 0¼d, plated ware, as gold and silver, from 17¼ to £1 14s 0¼d; **N.** Gold and silver leaf free, wire-drawers' work, of gold or silver, also wire, spangles, cords, &c., real or imitation ¼d; **Per.** Jewellery, fine 10% a v, imitation 45% a v; **PR.** Gold jewellery with pearls or stones 9 pesos per hectogramme, silver do., do. 1 peso 35 cts, gold and silver in other articles 84 cts; **P.** Gold in bars and in specie, silver in bars and in specie free, gold in leaf for gilding (including the books) 3200 reis per kilo, gold not otherwise distinguished, in wire or manufactured 31800 reis, silver in leaf for silvering (including the books) 1300 reis, silver or platina not otherwise mentioned, or in wire 6000 reis, silver and platina manufactured 10960 reis; **R.** Gold in bars and ingots, broken articles of gold and gold dust, gold leaf for gilding free, gold hammered and wire 11¼d, goldsmiths'

Gold and Silver Wares—continued.

- wares of gold, platinum or silver gilt 8d, jewellery of gold or platinum with or without precious stones $2/3$, silver unwrought in pieces, broken articles of silver, silver leaf free, silver hammered and wire $2\frac{1}{2}$ d, silversmiths' wares 8d, jewellery of silver, with or without precious stones $1/4$; **Rus.** Articles of gold of all kinds, gold jewellery, &c., not otherwise enumerated $8/8\frac{1}{2}$,† articles of silver or of silver gilt, of all kinds, silver jewellery, &c., not otherwise enumerated 6'98d†, gold and silver lace, silver drawn and spun, spangles, and other ornaments, and gold and silver ribbon $1/5$ 31,† gold and silver leaf, single or double, including the weight of the books 3'46d†; **S.** Gold jewellery, or gems set in gold, of whatever kind 6'2'65, silver jewellery or gems set in silver, of whatever kind 10'45d, all other gold or silver wares 7'76d; **Sn.** Gold wares 4'85d, gold leaf, real or false (including the weight of book or wrapper), also gold dust '97d, gold and silver wire, lace, fringes, braid, &c., '97d, silver wares, gilt or not, 2'90d, silver leaf, real or not, '58d; **Sz.** Gold and silver leaf '05d, gold and silver rolled, in plates or bands '06d, wire '15d, jewellery and gold and silversmiths' work, real or plated '09d; **T.** All kinds of gold and silver wares 8% a v; **US.** Gold leaf 6/3 per 500 leaves, silver ditto $3/1\frac{1}{2}$, ditto silver wire 45% a v, gold and silver jewellery, watch chains, &c. 25%, gold or silver embroideries 45%, plated wares 35%, all other gold or silver wares **USC.** 45%; **USC.** In bars $1\frac{1}{2}$ d per kilo, other form 5/, coins not inferior to **Ven.** standard 900, fines, free; **Ven.** 6th class, imitation jewellery, 8th class, gold and silver, precious stones, watch, jewellery, and card cases.

Gold Leaf.—See Gold and Silver Wares.

Grease, per cwt.—**A.** $1/0\frac{1}{2}$; **B.** Free; **Br.** Tallow, raw or rendered '70 per k., in candles and purified for pomades '320 per k.; **Ch.** Animal tallow, 0'2'0'0 100 catties, vegetable 0'3'0'0, varnish or crude liquors 0'5'0'0; **Cor.** Varnish 8% a v; **D.** Refuse of fat or train oil, also carriage grease $2/4\frac{1}{2}$, tallow $4/8\frac{1}{2}$; **F.** Grease of fish $2/5\frac{1}{2}$, ditto other kinds free; **G.** Animal fat (other than lard) $1/0\frac{1}{2}$, carriage grease $1/6\frac{1}{2}$; **Gr.** $6/4\frac{1}{2}$; **Hay.** tallow $4/8$; **H.** Free. (**NOTE.**—Cart grease in boxes, pots, and cases, &c., of one kilogramme pays a duty of 5% a v); **I.** Varnish made with spirits $12/2$, with addition of 36 lire per hectol. of alcohol contained on basis of 70° of strength, all other kinds $8/2$; **Nic.** Tallow and all animal fats 2d per lb; **N.** Fat, train oil, spent fish oil free, varnishes, drying oils and polish £1 11s, wagon grease $2/3\frac{1}{2}$; **PR.** Varnishes 7 peso 54 cts per 100 kilo, grease 5 peso 80 cts per 100 kilo; **P.** Free; **R.** Grease of fish $4/1$, tallow and all grease employed for industrial purposes free; **Rus.** $2/11\frac{1}{2}$ †; **S.** $4\frac{1}{2}$ d; **Sn.** Machine and carriage grease $1/1\frac{1}{2}$, tallow free; **Sz.** Tallow $2\frac{1}{2}$ d, carriage grease 9†d, varnish and lac of all kinds, also oil varnish $2/10$; **T.** 8% a v; **US.** Tallow $4/8$, grease not enumerated 10% a v. (**NOTE.**—Grease for soap stocks free); **USC.** 10d per kilo, tallow $\frac{1}{2}$ d.

Grindstones.—**A.** Free; **B.** Free; **D.** Up to 14 inches diameter $\frac{1}{2}$ d each, From 14 inches to 20 inches wide, 1d
 " 20 " 32 " $2\frac{1}{2}$ d
 " 32 " 41 " $4\frac{1}{2}$ d
 of 42 inches diameter and above $4\frac{1}{2}$ d per cubic foot; **F.** Free; **G.** $1\frac{1}{2}$ d per cwt; **Gr.** Free; **H.** Grindstones small 5%, ditto other kinds and millstones free; **I.** Free; **N.** Free; **P.** 3d per cwt; **R.** Rough stones for millstones 1d, millstones, French, of all sizes £1 18s 5d each, ditto of Carpathian quartz £1 8s 10d, ditto common of trachite and others $14/5$, grindstones $1/3\frac{1}{2}$ per cwt, millstones of all kinds $12/2$ per pair; **Rus.** $3\frac{1}{2}$ d per cwt.; **S.** 6d per ton; **Sn.** Free **Sz.** Millstones $4\frac{1}{2}$ d per cwt, grindstones unmounted $1\frac{1}{2}$ d, ditto mounted $1/7\frac{1}{2}$; **T.** 8% a v; **US.** Grindstones rough or finished $7/3\frac{1}{2}$ per ton, millstones 20% a v.

Gunpowder.—See Iron and Steel.

Haberdashery.—See Woven Manufactures.

Hammers.—See Iron and Steel.

Hams.—See Bacon and Hams.

Handkerchiefs.—See Woven Manufactures.

Hardware.—See Iron and Steel.

Harness.—See Hides and Skins.

Hats, Beavers, Silk, &c., per cwt.—A. Of felt £4 11s 5d, of silk £6 12s 1d; Ar. Of all sorts 40% a v; B. 10% a v; Br. Of hare, otter, or beaver skin and hair, plain 2'200 each, ditto ornamented 4'500 each, of esparto, with ornaments '600 each, without ornaments 1'200 each, of Chilian, Peruvian, or Manilla straw 2'400, of Italian and similar straws, without ornaments '700, of all other kinds, without ornaments 48% a v, hats of straw 1'500 each and 30% (Chili, Peru), ditto Italian '600 and 30%; C. Hats, excepting commons, 35% a v; Ch. Felt caps 1'25'0 per 100, silk caps 0'9'0 per 100; D. Silk 11d each, other kinds £7 10s 7d per cwt; E. 2/1 per kilo, trimmed for ladies 4/2; F. Felt 23d each, silk 11½d; G. Of silk or half-silk £7 12s 5d per cwt, of felt £4 11s 5d; Gr. High, for men 2/4½ each, low, of felt 11½d; Hay. Of bear-skin, for sappers 2/1 each, cocked, with silver or gold lace 33/4 each, other from 2/6 to 37/6 per doz; H. 5% a v; I. Caps £4 per 100, men's hats, of felt, hair, or wool, trimmed or not £2, ladies' hats, trimmed £20, of silk, pure or mixed with other material £6, of straw (hats of esparto, bark, or palm fibre are considered as of straw) £1; N. Of felt or silk 5½d each; PR. All kinds 1 peso 86 cts per doz under foreign flag, and 1 peso 30 cts under Spanish flag; P. 25'75 a v; R. Silk hats for men, opera hats of all kinds £52, straw hats £26, felt hats, fine or semi-fine £12 4s, ditto coarse for peasants and soldiers 8/2; Rus. 3/2 each, men's caps 1/3½, with an addition of 20% on each rouble of duty leviable in each case; S. 1/5½; Sn. Of silk 1/8, other kinds 5½d; Sz. Women's hats, all kinds, trimmed 12/2½, men's hats, all kinds, trimmed £3 1s; T. All kinds 8% a v; US. Of silk or felt 30% a v, of wool, value not exceeding 30 cents per lb 5d per lb,* valued at over 30 and not over 40 cents (1/8) per lb 6d,* valued at over 40 and not over 60 cents (2/6) per lb 9d,* valued at over 60 and not over 80 cents (3/4) per lb 1/,* 35% a v,* and valued at over 80 cents per lb (1/5½) and 40% a v; USC. As materials of which composed, straw 5s per kilo; Ur. 48% a v.

Hemp.—See Linen.

Herrings.—See Fish.

Hides, Skins and Leather, per cwt.—A. Hides and skins, raw free, sheep or goat skins tanned (not tawed or chamois), also split not dyed 6/1, leather, common, not otherwise specified, cow and horse hide, merely blacked, stretched or grained, in whole or half skins 9/2, fine black leather, except that named above, as glove, cordovan, morocco, sole leather, saffian and all dyed, lacquered and bronzed leather, leather with impressed designs, parchment 18/3, leather wares (1), common, i.e., wares of common leather, not tawed or chamois, also wares of leather cloth or oil-cloth, saddlers' strap-makers' and trunk-makers' wares of hairy skins, sail-cloth, twills, drills, grey packing cloth of unbleached jute or coarse linen tissues, all these wares combined or not with other materials £1 5s 5d, (2) fine, i.e., of cordovan, morocco, saffian, Brussels and Danish leather, of black leather, except cow and horse hide, of chamois or tawed, dyed or lacquered or embossed leather, wares of oiled muslin, oiled silk or parchment, all these wares combined or not with other materials, shoemakers' wares of leather or combined with leather, also saddlers' strap-makers' and trunkmaker's wares, combined with bleached or dyed tissues or carpet £1 15s 7d, (3) gloves, made up or merely cut out, combined or not with woven or knitted wares £2 0s 8d; Ar. Boots and shoes of all sorts 40% a v, harness, saddlery 40% a v; B. Hides and skins, raw hides free, skins of sheep or goats, tanned with the hair, kid skin tawed with the hair 4/0½, other skins, tanned or curried 6/1, otherwise prepared 12/2, parchment free, leather wares, all kinds 10% a v; Br. Raw hides of every kind, green '100 per kilo, dried and salted '140 per kilo, prepared and tanned, with hair, from '200 to 2'200, boots and shoes from '625 to 12'500 per pair, slippers and sandals '300 to 3'000 per pair, gloves 5'600 to 9'000 per dozen pairs, trunks 3'750 to 25'000 each, saddles 7'500 to 17'500 each; C. Harness, portmanteaus, boots and shoes, gloves 35% a v; Ch. Hides, buffalo and cow, per 100 catties 0'5'0, ditto rhinoceros 0'4'2'0, leather 0'4'2'0, articles, as pouches, purses 1'5'2'0, green leather 1'8'0'0, leather, strips 5% a v, trunks 1'5'0'0, shoes or boots, leather or satin 3'0'0'0 100 pairs; Cor. Raw, 5% a v, tanned 7½% a v, leather 7½%, manufactures 10% a v; D. Hides and skins, undressed free, dressed, dyed, blacked, varnished,

Hides, Skins, and Leather—continued.

- lacquered or bronzed, gilt, silvered or embossed, shagreen, cordovan, morocco and Russian leather, parchment and bookbinders' leather £1 8s 3d, other kinds 18/10, leather wares, gloves, combined or not with other materials £8 9s 5d, boots and shoes with uppers wholly or partly of silk £5 12s 11d, ditto other kinds £3 15s 3d, other kinds of leather wares £1 17s 8d; **E.** Hides and skins 1/0½ per kilo, leather, raw and manufactured, 1/0½; **F.** Hides and skins, raw, fresh or dry, small or large, free, prepared hides, sheep skins, dyed 18/3, varnished, dyed or moroccoed £1 4s 5d, goat, sheep, lamb or calf skins, not dyed nor varnished 4/0½, other kinds 8/2, manufactures of leather, top boots 1/3½ per pair, other boots 9½d pair, shoes 4½d pair, straps for sabots £1 0s 4d per cwt, gloves of lamb or calf skin, simply stitched 4½d per doz, ditto quilted (piqués) 7½d, gloves of goat or kid, simply stitched 9½d, ditto quilted (piqués) 1/ per doz., saddles for men 4/9½ each, ditto for women 6/5, other fine saddlery £3 5s per cwt, harness 16/3, hose pipes and bands for machinery £1 0s 4d, trunks of wood or pasteboard, covered with leather £1 4s 5d, morocco leather goods, limp £3 5s, ditto hard £2 8s 9d, other leather wares £1 12s 6d; **G.** Hides and skins, raw (green, salted, limed or dried), without the hair, for making leather, also scrap leather, skins to be prepared for furriers' work free, half-dressed kid, tanned, but not dyed sheep or goat skins 1/6½, per cwt. sole leather, Brussels and Danish glove leather, cordovan, morocco and all dyed or varnished leather except Russia leather 18/3, all other undyed leather, dyed Russia leather, parchment, &c. 9/2, leather wares, coarse, shoemakers', saddlers and trunk-makers wares, and other wares of undyed or merely blackened tanned leather, or of raw hide, plain or in combination with other materials £1 5s 5d, fine, of cordovan, morocco, Brussels or Danish leather, of chamois, white, coloured or lacquered leather and parchment, plain or in combination with other materials, except gloves and those articles which come under the head of "Small Ornamental Wares" £1 15s 7d. (**NOTE**—Shoemakers' or trunk-makers' wares of canvas or oil-cloth pay as fine leather wares.) **Gr.** Gloves £2 10s 10d; **Gr.** Hides, raw, dried, salted or not 3/4, in a wet condition, salted or not 1/8, dressed shoe leather, in large or small pieces, and cow hides not varnished £1 12s, cow hide, coloured or varnished £4, other leather, varnished £6 8s, calf skins, dyed or not, sheep or goat skin in large or small pieces, morocco and Russia leather, dyed or not, of whatever quality £4, calf and kid skin not otherwise mentioned £9 12, leather wares, boots and shoes, of common leather, for soldiers, workmen or sportsmen £4 6s 5d, other sorts, for men, women or children, also slippers of leather, wool, linen or cotton, including felt shoes £12 16, shoes and slippers of silk or other embroidered tissues, or with threads of gold or silver £48, gloves of leather, without fur 3d per pair, ditto with fur 9½d, sword belts of leather and leather straps for caps, &c. £7 13 7d per cwt, bands for machinery and linings for hats free, tubes, haversacks, bellows, satchels, blotting-cases, &c. £1 12, saddles of all sorts 12s each, harness and other saddle-makers' ware, £4 16s. per cwt, other made up (stitched) goods of all kinds 6/5; small wares, as cases, portfolios, purses, pocket-books, and other small articles of ordinary leather, calf skin or morocco £16; **Hi.** **Hay.** **Hi.** Leather manufactures free; **Hay.** Cow 2/8 each, buffalo £2 10s. per doz. horse 1/3 each, ox, tanned 8/4, per doz. sheep skins 2/1, do. morocco 4/2, imitation 2/1, do. hog 12/6, calf 8/4, do. varnished 12/6 do. chamois 1/3 each, imitation 2/1 per doz. leather tanned, per doz. sides 12/6, shoes per doz. from 4/2 to 10/5, boot, upper, per pair 1/8, aprons, each 3/1½, belts, sword, per doz. 10/5, ditto, varnished, ditto 6/3, visors for caps, ditto, 10d; **H.** Hides and skins, leather and parchment free, leather wares of all kinds 5½ a v; **I.** **I.** Raw, green, or dried, free, tanned, with the hair on fine, and common 24/4½, tanned without the hair unfinished (*i.e.*, as taken from the tan pit) 10/2, without hair (sewn) £1 8s, varnished £1 16s 6½d, dressed for sole leather 18/3½, dressed, other 28/7½, dressed kid and lamb skins 8/1½, cut in leg pieces, upper leather, &c., as the skin of which composed with 20% additional cut in strips for hats, as the skin of which composed with 50% additional, parings and scraps free, fur manufactures of all kinds £12 13s 10d, leather wares, harness, ornamented £11 16s 6½d, saddles 12/- each, groves, cut out or made up 16/- per hundred pairs, bootmakers' wares, boots and buskins £8 per hundred pair other kinds £8. (Boots and shoes of

Hides, Skins, and Leather—*continued*.

- all kinds in leather or stuff, except silk or velvet, will pay a duty of 100 lire per 100 kilos.) Other leather manufactures, bands finished, and sewn for machinery £2 os 7½d. All other leather manufactures (including fancy goods and portmanteaus) £2 8s 8½d ;
- J.** Buffalo and cow 1 bo 20 cents per 100 catties, leather 2 boos per 100 catties ; **M.** Leather gloves of all sizes, plain or embroidered, when not lined l w 4'50 per kilo, ditto lined 2'75, buckles covered with leather g w 0'25 ; **Nl.** Leather and leather wares 10% a v ; **Nic.** None are imported as skins, but could go as dry animal skin, leather, all kinds 8½d, bellows, all kinds 6d, leather and skins, manufactured 1/3½, boots and shoes, ordinary, common 1/4½, boots and shoes, gentlemen's, and whips, 1/8½, boots and shoes, ladies' 2/1½, gloves 3/5 ; **N.** Hides and skins, undressed raw, dried or salted free, dressed with the hair, other than peltries 18/10 per cwt, tanned, including sole leather 13/1, ditto other kinds, including morocco, cordovan, &c. £1 6s, leather wares, wares of leather with the hair, other than peltry wares £1 os 11d, gloves, made up or merely cut out, plain or combined with other materials £5 1s 8d, shoemakers' work, wholly or partly silk or £6 12s 8d, ditto of other tissues, or of cordovan, morocco, lacquered or dyed leather, plain or combined with other kinds of leather £4 1s 10d, ditto of other kinds of leather or of felt, with soles of wood 11/4, ditto with soles of other materials £2 13s 8d, saddles, bridles, harness carriage aprons, whips and trusses £1 13s 11d, small bags, pocket books, &c. £2 5s 2d, all articles of leather not otherwise enumerated 10% above the duty on the leather of which they are manufactured. (NOTE.—Leather merely cut out or in the form of boot legs or hat linings is not considered as manufactured leather.)
- Per.** Hides and skins, not specified ; leather and manufactures 45% a v ; **PR.** Per kilo, leather and skins, untanned, and sole leather, per 100 kilos 14 p 50 c, leather and skins, tanned as upper leather (baqueta) sheep skin (badana) morocco, and sheep and goat skin, haired, 36 c fine as calf, black and saturated kid, shagreen, buffalo, hog and chamois 5 cs, shoes, all kinds 80 c, harness and saddlery articles 58 c, shoes and leather 5 p 80 c, other articles of leather or lined with same 1 p 15 c ; **P.** Per kilo, skins or hides (fresh) dressed or not 12r, ditto (dried) dressed or not 22r, leather tanned 85r, kid without distinction of colour or finish 86o r, skins dressed or hides coloured, varnished, or morocco 355 r, skins dressed or hides not otherwise mentioned 285 r, kid gloves finished or unfinished 135 r per pair, manufactured skins or leather for personal use 7'000 r per kilo, prepared skins or leather not elsewhere specified, including ornamental brass-work 555 r, boots and shoes with leather soles 450 r per pair, ditto, not otherwise mentioned 215 r per pair, trunks, portmanteaus, bags and game bags 27% a v ; **R.** Hides and skins, raw, fresh, dried, or salted free, tanned, common leather, not specially enumerated 16/3 per cwt, fine, viz., dyed (except simply blackened leather), varnished, gilt or silvered leather, also tawed and chamois leather, glove skins, morocco and cordovan and castor £1 8s 5d, scraps of leather 2/0½, leather wares, common, such as bootmakers', saddlers' harness and trunkmakers' wares in common leather, combined or not with other materials 18/3, fine (except gloves), viz., articles other than those enumerated above, combined or not with other materials £1 16s 7d, articles of fine leather, ornamented or combined with amber, ivory, tortoise-shell, mother-of-pearl, jet, meerschaum, precious metals and fine or semi-fine stones 7% a v, leather gloves of all kinds 7%, boots and shoes £1 16s 7d, scraps of leather not exceeding 5 centimetres in length 4/1, military gloves, gloves lined, breast pieces and gloves used in fencing, vests and breeches £12, leather wares, boots and shoes of silk or of silk or cotton velvet, also shoes embroidered of gold or silver thread £16 5s 4d ; **Rus.** hides and skins, salted or dried of all kinds including shreds of undressed skins of every kind not dressed 4/11, wet salted 2/5½, hides, dressed, small, calf, chamois and kid skins, tanned, tawed or prepared with alum, leather shaped for boots and shoes, also morocco leather £4 8s 8d, † large ox, cow, horse or pig-skins, tanned, tawed or prepared with alum, straps of walrus skin, driving bands, belting of all kinds, also parchment £2 9s 3d, † lacquered of all kinds £3 5s. † NOTE.—Leather shreds pay the same duty as the class of leather to which they belong. Leather, wrought boots and shoes of all kinds (except ladies' of silk) £11 16s 5d, † ladies' boots and shoes of silk tissues £23 12s 10d, † gloves, except boxing and fencing gloves, and all articles of chamois leather or kid other

Hides, Skins, and Leather—*continued.*

- than boots or shoes £48 1s 6d, † gloves, cut out, not sewn £24 0s 9d, † bands for lining hats and caps and leather stitched for boots and shoes £8 17s 4d, † harness of all kinds, saddles and all kinds of saddlers' work, trunks, travelling bags, leather sporting articles, as game bags, &c., fencing gloves and all articles of leather not otherwise enumerated £8 17s 4d †; **Sal.** Per lb, g w, hides 11½d. skins 1½d, leather, plain, per lb 9½d, bridles with single reins, per doz. £1 1s 7½d, ditto with double reins £1 10s 10½d, reins ditto 13s 10½d, harness for plough, each 15/5½, ditto for carriage £1 10s 7½d, saddles, common, £2 6s 3d, fine £3 1s 9d, women's £1 10s 11d, leather, varnished for shoes, &c., 11½d per lb, shoes 7/9½ per pair, for children 3/1½. **S.** Hides and skins untanned 2/5½. (**NOTE.**—Untanned hides and skins when imported salted pay, if fresh salted, 60% less than this duty, and if dry 30% less; also they pay 1/2½ less per cwt when imported directly from non-European foreign countries.) Tanned (except calf skins) and sole leather £3 15s 2d, lacquered or varnished and tanned calf skins £5 1s 7d, leather wares, saddlers' and trunkmakers' wares, bags, portmanteaux, hat boxes, &c. £4 7s 4d, gloves £37 5s 2d, boots and shoes £11 9s 8d, other articles £9 6s 1d; **Sn.** Hides and skins undressed free, dressed, sole leather, tawed and chamois leather 13/7, other kinds including lacquered hides and skins, also parchment £1 6s 6d, leather wares, bands for machinery free, shoemakers' wares of silk £6 12s 8d, of felt or canvas with or without sole £2 5s 2d, of other tissues or of morocco, cordovan or of dyed, pressed or stamped skins £3 19s 1d, sea boots, waterproof free, other kinds £2 13s 1d, saddlers' wares, portfolios, purses, &c. £1 8s 3d, gloves £5 1s 8d, skins, cut out for gloves £1 19s 6d, other leather wares 20% above the duty of the leather of which they are manufactured; **Sz.** Manufactures of leather of every kind, except shoes, finished, travelling necessities (trunks, travelling bags, &c.) made wholly or in part of textile materials (waxed cloth, sailcloth, &c.), also prepared parts 12/1½, shoes, of leather of every kind, common, fine, 12/1½d, of cloth with soles of leather, of half silk, silk or velvet 60/1½d, of other stuffs 20/3½, prepared parts of every kind also leather gloves 12/1½, hides, skins and leather unmanufactured waste of hides, skins or leather free, hides or skins dried or salted but not tanned 3d, skins tanned or curried with the hair 3/3, leather 3/3, hides and skins sewn together, but not fitted, such as bags or racks, **T.** for lining mantles 12/2½; **T.** Leather and leather wares of all kinds 8% a v; harness, shoes of all kinds 48% a v, soles and hides **US.** curried 44%; **US.** Hides and skins, raw, dry, salted or pickled free, leather, unfinished morocco skins 10% a v, band or belting leather and sole leather 15%, calf skins tanned or tanned and dressed, dressed upper leather of all kinds and skins dressed and finished, including finished morocco skins not otherwise mentioned 20%, patent leather 20%, parchment free, leather wares, gloves 50%, boots and shoes 30%, other kinds 30%, driving gloves composed of cotton and leather, leather being the component of chief value 30%, leather (and wooden) cases containing opera glasses, marine glasses and telescopes, which cases are intended for use otherwise than in the *bona fide* transportation of the contents 100%, chinese shoes composed of cotton, leather, pith, &c., having soles about 1 inch in thickness which are composed largely of hair 1/8 per lb and 35%; **USC.** Not prepared except those enamelled 10d, per kilo enamelled leather not manufactured 1/3, boots and shoes, etc., 4/2, gloves, caps, skins for adorning dresses, etc., pocket books, cigar cases, satchels, and other **Ven.** similar articles 3/-, wares not otherwise mentioned 4/2; **Ven.** 4th class untanned and sole leather, 5th class, parchment and imitations, 6th class, tanned and manufactured patent leather, and tanned sheep skins. Leather manufactures; 2nd class, harness for coaches and vehicles, not specified, 3rd class, for hearses, carts, wagons, holsters, 5th class, bags, hats boxes, strings, trunks, measures, 6th class, whips, portemonnaies, 7th class, girths, headstalls, reins, saddles, shot pouches, scabbards, patent leather manufactures, 8th class, gloves, 9th class, boots and shoes.

Hinges.—See Iron and Steel.

Hollow Ware.—See Iron and Steel.

Hooks.—See Iron and Steel.

Hops, per cwt.—A. 10/2; B. Free; Br. 1080 per kilo and 10%; Cor. 7½% a v; D. 16/6; F. 5/1; G. 10/2 (gross); Gr. Free; Hl. Free; H. Free; I. Free; Nic. As drugs 6d per lb; N. £1 6s 6d; Per. 10%; P. 5% a v; R. 10/2; Rus. 11/10 with an addition of 20% on each rouble of duty leviable; Sal. gw 6d per lb; S. 4/0½; Sn. 5/8; Sz. 1/7½; T. 8% a v; US. £1 17s 4d; USC. 5d per kilog; Ven. 4th class.

Horses.—A. Foals with the mare free, horses and foals, other kinds £1 each; B. Free; D. Free; F. Horses and mares £1 4s, foals 14/5; G. £1. (NOTE.—Foals with the mare are admitted free.) Gr. Free; H. Free; I. Free; M. Horses, except geldings, 20 dols. each; N. Free; P. 10/8; R. Stallions £2 8s each, mares 16/1, foals 8/; Rus. Free; S. Geldings above the standard height £5 2s 8d, other kinds of horses, mares and foals £1 5s 2d; Sn. Free; Sz. Horses and mares 2/4½, foals 9½d; T. 8% a v; US. 20% a v. (NOTE.—Animals imported specially for breeding purposes may be admitted free of duty upon satisfactory proof to that effect being given.)

Hose, India-rubber and Gutta Percha.—See Woven Manufactures.*

Hosiery.—See Woven Manufactures.

Household Furniture.—A. Very common, not varnished, polished or coloured, not combined with other materials free, other kinds, rough or painted, stained, varnished, lacquered, or polished, plain or combined with straw, cane, common metals or common leather 3/0½ per cwt, fine carved and turned wares and stuffed furniture of all kinds not covered 12/2, stuffed furniture, covered, also fine inlaid wares £1 0s 4d, iron furniture stuffed and covered or finely ornamented 15/3; Ar. Household furniture 40% a v; B. 10% a v; Br. Tables, iron or steel, plain, each 2,000 r; do, worked or ornamented, each 4,000 r. Sofas, iron or steel, plain, each 3,000 r; do, worked or ornamented, each 6,000 r. Mattresses, quilts, 500 per kilo, sofas 2'800 r to 36'000 r; C. Furniture of all kinds 35% a v; Ch. Free; Cor. Japanese 5% a v; other kinds 8% a v; D. Of mahogany, walnut and other fine foreign woods, solid or veneered, plain or combined with other woods, also of all kinds of wood gilt or silvered 16/6, other kinds 7/1; E. Billiard tables and accessories, also furniture of all kinds, 5d per kil, marble slabs 5d; F. Furniture of bent wood, plain 2/10½, furniture other than of bent wood, chairs not carved nor inlaid nor ornamented with copper, of common wood 2/10½, ditto of cabinetmakers' woods (*bois d'ébénisterie*) 4/0½, chairs carved, inlaid or ornamented with copper of any sort of wood 6/1, other than chairs veneered, not carved nor inlaid nor ornamented with copper 4/0½, ditto carved, inlaid or ornamented with copper 10/2, ditto of common woods solid 2/0½, other than chairs of solid cabinetmakers' wood (*bois d'ébénisterie*) with or without mouldings, but not carved nor inlaid nor ornamented with copper 4/0½, ditto carved, inlaid or ornamented with copper 7/4, stuffed, padded or covered furniture of whatever sort 15% additional on the above duties according to class; G. Furniture unstuffed, very common, not including furniture of hard wood or veneered furniture 1/6½, furniture not otherwise specified, combined or not with common metals, glass, leather or other similar materials 5/1, fine inlaid or carved 15/3, furniture stuffed uncovered 15/3, covered £1 0s 4d;

Ar. B. Br. C. Ch. Cor. D. E. F. G. Gr. H. I. Ni. Nic. N.

Gr. Of common wood, plain, not upholstered 12/9½, ditto upholstered 19/2, of common wood, gilt, carved, inlaid and ornamented with metal, but not upholstered 12/9½, of other wood, plain, not upholstered £1 5s 7d, ditto not wholly or partially upholstered with rich material £1 12s, ditto upholstered wholly or in part with rich material £2 11s 2d, ditto gilt, carved or ornamented with metal, but not upholstered £3 4s, ditto not wholly or partially upholstered with rich material £4 16s, ditto upholstered wholly or in part with rich material £6 8s; H. 5% a v; I. Not upholstered, of common wood, bent 3/1 per cwt, other 5/3, of fancy woods, veneered, carved, or inlaid 24/4½. Upholstered, of common wood 16/3; of fancy woods, veneered 24/4½ per cwt; Ni. 6% a v; Nic. Iron, wood 4d per lb; N. Furniture and joiners' work, with cushions or seats covered or not, except with silk, of walnut, mahogany or other foreign woods, solid or veneered and furniture ornamented with real or imitation gilding 14/1, of fir or pine, plain or with small parts of other indigenous woods, but not veneered 2/3. (NOTE.—Furniture of fir or pine, with larger admixture of other woods is charged the duty on the most highly taxed material.) Of beech or other indigenous wood, plain or veneered with such woods 5/8. (NOTE.—Furniture with

Household Furniture—continued.

- Per.** **PR.** coverings, hangings, &c., of silk, plain or mixed with other materials will be charged 10% additional duty) **Per.** 50% ; **PR.** Per 100 kilos. Furniture, fine, turned, carved, polished, and varnished ; ordinary, veneered with fine ; upholstered, except with silk, and other with moulded borders or varnished 27 pes 80 c, gilt, inlaid work, ornamented with mother of pearl and other fine materials and metal mouldings, and upholstered with silk, 43 p 50 cts. ; **P.** Furniture of any material, other than metals, upholstered or not 27% a v ; **R.** Plain 3/8, upholstered, also gilt, inlaid, &c. 12/2, furniture of iron, upholstered or not but not gilt or silvered 12/2 ;
- Rus.** **Rus.** Basket work furniture 1/11 1/2, joiners' and turners' work of common wood, not varnished, polished or veneered 2/11 1/2, polished, varnished, lacquered or veneered, also gilt or silvered or with gilt or silvered ornaments and all small turned articles weighing less than one funt or 0.9 lb 11/10. (NOTE.—Stuffed and covered furniture is charged 25% additional on the above rate.) Joiners' or turners' work with inlaid ornaments of bronze, copper, steel, mother-of-pearl, ivory, tortoise-shell, wood, &c. (except such articles as come under the head of small wares) £3 5s, carved work of all kinds, including frames £2 10s ; **Sal.** Sofas, fancy wood, each £3 17s 2 1/2d, plain £1 10s 10 1/2d ; dressing-tables, fancy, each £4 12s 7 1/2d, plain £2 6s 3 1/2d ; beds, fancy, each £3 1s 9d, plain £1 4s 8d ; trunks, fancy, each 18/6, plain 6/3 ; tables, fancy, each £3 1s 9d, plain £1 4s 8d ; billiard-table, with fittings, each £46 5s 11 1/2d ; cupboards or wardrobes £3 17s 2 1/2d, ditto with glass £6 3s 5 1/2d ; chairs, painted, per dozen £1 10s 10 1/2d, cane bottomed.
- S.** ditto £3 1s 9d, fancy wood, ditto £3 17s 2 1/2d ; **S.** Of common wood turned, painted, varnished or not 7/7 1/2, of finer woods carved polished or varnished, also of common wood veneered with finer woods, furniture covered, except with silk or leather, and not gilt or inlaid with metal ornaments 13/8, gilt or inlaid with mother-of-pearl and other similar substances, also furniture with metal ornaments or covered with silk or leather £2 1s 8 1/2d ; **Sn.** All wood, more or less wrought, including cabinet or chairmakers' work, of fir or spruce, not stained, painted nor varnished 1/1 1/2, ditto stained, painted or varnished 2/3, of elm, ash, birch, beech, oak or other Swedish indigenous woods polished, painted, varnished or not or veneered with the above-mentioned kinds of wood 4/6, of mahogany, rosewood, pear, walnut or other foreign woods, solid or veneered, also ornamented with real or false gilding 8/6. (NOTE.—Furniture stuffed but not covered will be charged an additional duty of 20%, furniture covered of 40%.)
- £z.** **Sz.** Carpenters' work, furniture and parts of furniture, of common wood, painted, varnished, veneered, mouldings, varnished, also ditto polished, carved, upholstered, etc., frames plastered or varnished 6/6 ; **T.** 8% a v ; **US.** Unfinished, in pieces or rough 30% a v, finished 35% ; **USC.** Beds, large tables for dining-rooms, presses or large chests of drawers for linen and other uses, without looking-glasses, sculpture, carved, or adornments 2 1/2d per kilo, all kinds of furniture with looking-glasses, sculpture, carved, or upholstered with wool or silk 1/3, other 10d ; **Ur.** 48% a v
- Ven.** 4th class, furniture, common, of wood, cane, or straw ; 5th, class, furniture, upholstered or of fine woods (rosewood, mahogany, walnut, &c.).

Imitation Jewellery.—See Glass and Glasswares.

- Indiarubber and Gutta Percha**, per cwt.—**A.** Indiarubber and gutta percha raw or refined free, indiarubber, dissolved, threads not combined with other materials 1/6, india rubber, hardened, polished or no not further wrought (sheets, bars, tubes) 6/1, indiarubber or gutta percha wares, (1) hose and machine bands 12/2, (2) wares of soft indiarubber not otherwise specified £1 0s 4d, (3) hardened indiarubber wares combined or not with other materials, children's toys, shoemakers' wares, wholly or partly of indiarubber, not being subject to a higher duty under the head of leather or small wares £1 10s 6d, (4) tissues coated or impregnated or incorporated with layers or threads of indiarubber £2 5s 9d, (5) elastic tissues, hosiery and fringe-makers' wares wholly or partly of indiarubber threads, also with appurtenances of other materials £3 11s 1d, (6) ready-made clothing and other wares of tissues enumerated under No. 4 £2 10s 10d. (NOTE.—Artificial card leather and indiarubber printing cloths 3/0 1/2.) **B.** Indiarubber and gutta perchaun manufactured, in sheets or threads free, wares all kinds 10% a v ; **Br.** Belts, suspenders

Indiarubber and Gutta Percha—continued.

- and garters, covered with silk, or silk mixed with other materials 15,000 r, covered with any other material 3,200 r; cords and plaits, covered with silk 15,000 r, covered with any other material 3,200 r; tissues of caoutchouc for machines 500 r, fans, each 1,600 r, prepared or in lump for dentists, vulcanite, 1,600 r, tubes, thread, leaves, or sheets 600 r, not otherwise distinguished 48% a v; boots and shoes, 800 and 30% per kilo, combs 1'200 r, tubes, hoses 30% a v;
- Cor.** D. **Cor.** Manufactures 10% a v; D. Indiarubber and gutta percha sheets, bands, rings, tubes, &c. 11/9, other articles £1 17s 8d. (NOTE.—Indiarubber tissues are charged as tissues according to kind, see "Woven Manufactures.") E. Manufactures 1/0½ per kilo, hose for engines free; F. Indiarubber and gutta percha, rough or cast in lumps free, indiarubber manufactures pure or mixed 8/2, applied upon tissues, in pieces, or upon other materials £2 os 8d, made-up wearing apparel £2 8s 9d, in elastic tissues of any dimensions £3 1s, boots and shoes £1 4s 5d, combs £2 os 8d, other fancy indiarubber manufactures, "tableterie" £3 1s; G. indiarubber and gutta percha, raw or refined, vulcanised indiarubber, polished or with impressed designs in sheets, bars, tubes, &c. free, indiarubber threads not combined with other materials or with slight covering of unbleached and undyed cotton, linen or woollen yarn 1/6½, indiarubber plates and dissolved indiarubber 1/6½, coarse wares of soft indiarubber, not lacquered, dyed or printed, vulcanised wares, all these wares in combination with other materials, elastic threads £1 os 4d, fine wares of soft indiarubber, lacquered, dyed, printed or with impressed designs, combined or not with other materials, provided such articles cannot be classified under the head of small ornamental wares £1 10s 6d, waterproof tissues of all kinds coated or saturated with indiarubber, tissues of indiarubber threads in combination with other materials, hosiery and fringe wares in combination with indiarubber threads £2 5s 9d. (NOTE.—(1) Indiarubber printing cloths and cards for manufactories, &c., with certificates of entry under control free, (2) hempen hose, machine straps and carriage covers of coarse stuffs combined with indiarubber 12/2, ready-made clothing combined with indiarubber £3 6s, small ornamental wares of indiarubber or gutta percha £3 os 11d.)
- Gr.** Gr. Indiarubber and gutta percha, raw or refined, ditto in threads, sheets, bands, pipes, hose, &c. free, indiarubber wares, elastic for shoes mixed with cotton, silk or other similar tissues £6 8s, elastic tissues, made-up clothing and other manufactures of indiarubber or gutta percha not separately mentioned £8; H. Manufactures 10%, boots and shoes free; H. Indiarubber and gutta percha, unmanufactured, plain or vulcanised free, manufactures all kinds 5% a v;
- I.** I. Per cwt., raw, solid or liquid, free. Manufactured in braids, ribbons, and elastic tissues £2 16s 10d, sawn in sheets and in articles made of sawn sheets 24/4½, in threads £1 10s 5½d; in other articles including ebonite, but excluding articles of caoutchouc combined with tissues or metals 20/3½, in tubes and in sheets containing metallic wires and gauzes 16/3, mixed with tissues in all kinds of articles, except tissues waterproofed (*gommati*) in the piece and articles of clothing 24/4½, tissues waterproofed in the piece and articles of clothing as the tissues of which composed;
- M.** M. Indiarubber belting, imported separately from the machinery, g w 0'10 per kilo, indiarubber shoes of all shapes and sizes, fabrics and cushions for billiard tables g w 0'48, indiarubber covered fabrics, suitable for clothing, or any other similar use g w 0'80;
- Nic.** Nic. Made, no admixture of any kind, and boot elastics 1/4½ per lb;
- N.** N. Mixed with linen, cotton, or hemp, table-covers and indiarubber overcoats 8½d per lb; N. Indiarubber and gutta percha unmanufactured free, manufactured, sheets, boot-soles, cords, thread, straps, pipes, hose, rings, buffers, rollers and matting, plain or in combination with other materials free, floorcloth of textile material, mixed with indiarubber 7/4, tissues, tapes and bands mixed with indiarubber £3 2s 1d, ready-made clothing, waterproof, of silk £8 5s 5d, of other materials £2 1s 2d, other kinds £2 12s 6d; Per. Manufactures 45% a v; PR. Indiarubber and gutta percha in sheets, threads, tubes, hose, shoes, life preservers, and like goods, per kilo 29 cts, other 89 cts; textiles mixed with other materials per kilo 9 p 92 cts; P. Indiarubber and gutta percha unmanufactured free (tax of 2% a v.) indiarubber manufactures, tissues, with silk £17 13s 3d, ditto other kinds £8 16s 8d, wares,

India Rubber and Gutta Percha—continued.

- R.** tubes, &c. free, other kinds 6/3; **R.** Indiarubber and gutta percha, unmanufactured free, not varnished, dyed, or printed, combined or not with other materials, except precious metals, stones, coral, pearls, amber, jet, and tortoiseshell 18/3, varnished, dyed or printed, combined or not with other materials except precious metals, &c. £1 16s 6d; **Rus.** Indiarubber and gutta percha unmanufactured 3/3, manufactured articles of indiarubber or gutta percha (except boots or shoes) without admixture of any other material £1 15s 11d, tissues of indiarubber thread covered with other materials (elastic) and all manufactures thereof, indiarubber ready-made clothing, &c., £11 18s 5d, boots or shoes of indiarubber or gutta percha, plain or in combination with other materials £5 8s 4d, all other articles of indiarubber or gutta percha, combined with other materials £3 5s; **Sal.** Manufactures, 1/6½ per lb;
- S.** **S.** Indiarubber and gutta percha unmanufactured 1/2½, indiarubber wares, sheets, thread and tubes £1 0s 4d, tissues of indiarubber mixed with other materials £5 11s 8d, all other manufactures £3 15; **Sn.** Indiarubber and gutta percha, unmanufactured or vulcanised free, manufactured, rolled in sheets of 1-25th in. or more in thickness, with or without mixture of woven materials free, in sheets of less than 1-25th in. in thickness, without mixture of woven materials £2 16s 6d, waterproof tissues and clothing £4 18s 10d, tapes and bands of woven materials, mixed with indiarubber or gutta percha £3 2s 1d, parts of machinery, gas and water pipes and hose free, shoes and manufactures of indiarubber or gutta percha not otherwise specified £2 16s 6d; **Sz.** Caoutchouc and gutta percha, applied to tissues and other materials, shoes without needlework, and other manufactures not distinguished 6/6, elastic tissues of every kind, of caoutchouc, mixed with cotton, wool, silk, etc., £1 0s 4½d, clothing, underclothing, and other articles ready-made, with needlework 12/2½; **T.** Indiarubber and gutta percha and wares thereof, all kinds 8½ a v; **US.** Indiarubber and gutta percha unmanufactured free, indiarubber wares, fabrics, wholly or in part of indiarubber not specially enumerated 30½ a v, boots and shoes of indiarubber 25½, articles composed of indiarubber not otherwise specified 25½, gutta percha wares 35½; **USC.** Not manufactured 1/8 per kilo, shoes, boots, and all kinds of shoes, life preservers, and fabrics for leggings, ruanas, not containing wool or silk 3/4, tubes, hose, and pipes for pumps, drains and roofs, and indiarubber prepared for machinery and flooring (except hose for fire-engines, which pay only 1 c. per kilo) 2½d, covers or stoppers for bottles 5d, elastic cloth for books 2/6, buttons, not covered 1/8, manufactured in other form 4/2; **Ven.** 4th class, pipes conduits, machinery hands, 5th class, erasers, pencil holders, 6th class, boots, shoes, cloaks, combs, elastic for shoes, manufactured (not specified).
- Indigo,** per cwt.—**A.** By sea free, by land 3/0½; **B.** Free; **Br.** 500 and 20½ per kilo; **Ch.** liquid per 100 cattie, 0'1'8 0; **D.** £1 12s 11d; **F.** Free; **G.** Free; **Gr.** Free; **H.** Free; **I.** Free; **J.** Liquid 75 cents per 100 cattie, dry 3 boos 75 cents ditto; **N.** 14/1; **P.** Free; **R.** Free; **Rus.** £1 12s 6d; **S.** 4/1; **Sn.** 11/4; **Sz.** 1/7½; **T.** 8½ a v; **US.** Free.

Ink (Writing and Printing).—See Paper, &c.

Insulators.—See Glass and Glasswares.

Iron and Steel, per cwt.—**A.** Iron and steel unmanufactured, old, broken and refuse and raw iron 6½d. **NOTE.**—(1) With the special sanction of the Government old and broken iron, except cast-iron, may be imported for manipulation in certain ironworks at a duty of 6d per cwt, (2) iron filings and hammer slag free. Bloom-iron and ingots 1/7½, iron and steel in bars, wrought, not shaped 2/0½, shaped 3/6½, rails for railways 2/0½, plate sheet and wire, 1 millimetre thick and above 4/0½, less than 1 millimetre 5/1, polished, varnished, coated with copper, tin, zinc, lead or nickel 8/2, iron and steel manufactures, common cast-iron wares, rough unfinished goods 2/0½, scoured or coarsely painted, perforated or polished, turned or planed in some few places 4/0½, polished, turned, planed, coated with copper, tin, zinc, lead, enamelled or finely painted 8/8. **NOTE.**—The above wares of the two first-named descriptions combined with wood or with joining parts of raw iron pay the same duty; common iron and steel wares, viz., wares of malleable cast-iron, cast-steel, wrought-iron or steel not otherwise specified, rough or scoured 4/0½, coarsely painted, perforated or polished, turned or planed in some few places or with

Iron and Steel—continued.

- screws, wrought pipes and joints 5/1, polished, turned, planed, coated with copper, tin, zinc, lead or finely painted 8/8. **NOTE.**—The above wares in combination with wood or iron pay the same rates. Wrought-iron kettles and boilers, perforated or hollowed plate and sheet iron and wares of sheet iron, wheels for railways with or without axles 6/1, nails, wire tacks, carriage springs, pitchforks, shovels, rough, scoured or polished in some few places, scythes, sickles and chaff-cutters with or without wood in combination 6/7, wire rope, wire brushes, sieve bottoms and other coarse manufactures of iron wire 8/2, common edge tools, saws, plane-irons, awls, gimlets, files, rasps, &c., cutting pliers, coarse knives and scissors for industrial and agricultural uses, screws and locks, the same polished, turned, painted or coated with copper, tin, zinc or lead or in combination with wood 10/2, fine iron and steel wares (not coming under the head of "small wares") (1) polished, lacquered, nicked, enamelled not specified above, (2) art castings and other ornamental cast wares, (3) articles of wire not otherwise specified, pins, crochet and knitting needles, hooks and eyes, buckles, fish-hooks, thimbles and similar small wares, toys, skates, strings for musical instruments, cards of all kinds for carding machines, weavers' reels and dents and springs, except watch and carriage springs 15/3, (4) arms and parts thereof, except firearms, common cutlery not otherwise specified, (5) furniture stuffed and covered or with fine ornamentations, manufactures of iron and steel combined with other materials 15/3, fine cutlery not combined with ivory, mother-of-pearl, &c., pens, wire covered with thread, gun barrels and wire gauze £1 10s 6d, cutlery with handles of fine material £5 1s 8d, saws unpolished 10/2, ditto polished, scissors and finished tools weighing less than 100 grammes 1/04, all other cutlery £2 10s 10d, surgical instruments free, fire-arms, sewing needles, steel beads and fancy articles of iron and steel £2 10s 10d, railway engines, portable steam engines, and tenders 8/2, sewing and knitting machines 8/6, machines for the preparation and working of spinning material 3/04 and 4/6, filters and cooling apparatus for breweries, &c. 10/2, thrashing machines 7/1, machines not otherwise mentioned, made of 75% or more of wood, 5/1, made of base metals, the latter constituting more than 50% of the whole, 15/3, machines and apparatus not otherwise provided for 8/8, instruments, optical, mathematical, surgical, &c. free, arms and ammunition, arms (see fine iron wares), gunpowder £2 13s 4d (gunpowder can only be imported into Austria by special permission), percussion caps £1 4s 5d; **Ar.** Firearms of all kinds, gunpowder, ammunition 50% a v, fireworks 40%, iron in sheets, bars, rods, hoops 10%, instruments, utensils in combination with silver and gold 5%, ploughs, iron and steel wire, telegraph materials, agricultural machinery 5%, machines and engines for industrial establishments and steamboats free, iron rails, bolts, nuts, screws, locomotives free, iron pipes, tubes exceeding 75mm in diameter free, fuzes free; **B.** Iron and steel, anchors, anchor chains and capstans for ships free, pig and old iron 2½d, iron and steel, hammered, drawn or rolled 4½d, steel, rough cast 2½d, tin plate not manufactured 1/24, iron and steel wares, cast-iron wares 9½d, wrought-iron wares 1/7½, steel wares 1/7½, furniture and household articles of iron or steel, tin-plate manufactures, cutlery, pins and needles and other small articles or steel 10% a v, instruments, surgical, mathematical, &c. free, machinery, machines and detached pieces thereof of cast-iron 9½d, of wrought iron or steel 1/7½, of other metals 4/10½, arms and ammunition, arms free, shot 10% a v, gunpowder 6/1. (**NOTE.**—Pig iron for the manufacture of machines, utensils, &c., cast-steel and wares thereof, hardened iron for manufacture of screw-plates of firearms, iron wire for the manufacture of nails, parts of machinery unfinished, as fire-boxes for locomotives, boiler bottoms of copper for sugar-refining, copper tubes for locomotive boilers, iron tubes for steamboat boilers, steel springs for railway carriages and rough wheels, tires and axles for locomotives, are admitted temporarily free of duty, to be re-exported after completion of manufacture.) **Br.** Iron in ingots or pigs 5 r, iron in bars, plates, and hoops for casks, pipes, barrels, bales, etc., and, generally, in sheets of every description 0/15 r, iron filings, common, 50 r, steel in bars or rods 40 r. Needles of iron and steel, small, for sewing, machine, crochet, &c., 2400 r, not otherwise mentioned 2000 r, door-bolts, cased bolt locks, and latches for doors 350 r, curry combs 250 r, cables 130 r, anchors and

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grappling-irons 100 r, fishing-hooks 1600 r saddle-bows 800 r each, rings for keys 3000 r, for any other uses, with or without shanks or screw 350 r, trays, painted or varnished, with or without gilding or ornaments of mother-of-pearl 800 r, curbs 1000 r, cradles, plain 2500 r each, ornamented 5000 r each, gas-burners 1200 r, jewellery of steel 4000 r. (NOTE.—In this category are included ornaments, ear-rings, bracelets, watch-chains, &c., with or without imitation stones.) Jews' harps 650 r, bits for bridles 250 r each, buttons, perforated 500 r, not otherwise mentioned 1300 r, scale-beams 500 r, snaffle-bridles, plain 500 r each, with ornaments of white or yellow metal 1000 r each, safes up to 50 centimetres high 32,000 r each, more than 50, and up to 75 centimetres high 64,000 r each, more than 75 and up to 100 128,000 r each, more than 100, and up to 125 192,000 r each, more than 125, and up to 150 260,000 r each, more than 150, and up to 175 320,000 r each, more than 175 400,000 r each. (NOTE.—The duties include those on the pedestals or stands of common wood which accompany the safes; pedestals of iron or fine wood pay duty separately.) Muzzles (for animals) 350 r each, padlocks, plain or common 480 r, pump, secret, letter, and any other description 1600 r each, chairs and stools, plain 2000 r each, worked or with ornaments 3000 r each, rocking and those not otherwise mentioned 9600 r each, beds, plain, single 4000 r, each double 7500 r each, cots (for children) 2500 r each, worked, single 8,000 r each, double 15,000 r each, cots (for children) 5000 r each. (NOTE.—Beds which do not exceed 1 m. 10 in width are considered as single.) Plates and ribs for corsets, &c., plain, or covered with cloth or fine skins 1600 r, engraved, or with inscriptions for letters, and other commercial papers or documents, &c. 12,800 r, ditto, for the manufacture of printing presses 3200 r, galvanized, for roofs 40 r, not otherwise mentioned 1200 r, keys not otherwise mentioned 500 r, collars for animals 1000 r, plates for scales, with or without chains 500 r, chains for scales, with rings, for animals, &c., in pieces or in works of any kind, plain, tinned, or varnished 200 r, not otherwise mentioned 650 r, nails for shoeing animals 240 r, thimbles 650 r, hinges, hinge-pins, and similar articles for doors and windows, and for other uses 160 r, tenter-hooks with plates or fancy-work, 650 r, plain, or any description not otherwise distinguished 240 r, spurs, large, known as "Chilian," &c. 6000 r per dozen pair, not otherwise mentioned 4000 r per dozen pair, stirrups, filed, tinned, or varnished 2000 r ditto, polished with spring 10,000 r, ditto, without spring 6000 r per dozen pair ditto, for side-saddles 3000 r per dozen, known as *cacambas* 10,000 r per dozen pair, locks with a single turn, with or without gudgeon 320 r, with two turns, pump, secret, latch, and those not otherwise mentioned 1000 r, bolts (*fechos pedreses*) of half-wire and any other quality 200 r, wire of any quality, thick and plain 50 r, covered with paper, silk, or cotton 600 r, galvanized, including nails for walls 80 r, manufactured pins, plain or with head of glass or porcelain, varnished or galvanized 800 r, hooks and button-shanks, varnished or galvanized 500 r, cordage (for ships) 100 r, cages 1000 r, cramp-irons, varnished or galvanized, plain or with head of glass or falence 400 r, grills, rat-traps, and other similar articles 350 r, springs for chairs or mattresses 500 r, metallic cloth or tissue of thread, in lengths 600 r, ditto made up in articles of any description 1000 r, not otherwise mentioned 500 r, buckles of iron, plain, tinned, or varnished 500 r, of iron or steel, polished, for shoes, sashes, wearing apparel, &c., covered or not with any other material 1500 r, fire-grates, plain, ovens and stoves, portable furnaces, shelves, and other similar articles used in cookery 50 r, tinned sheet-iron in sheets, plain 80 r, ditto painted 120 r, manufactured, not otherwise mentioned plain 500 r, painted or varnished, wholly or in part, with or without ornaments of brass, copper, zinc, or other common metals 1000 r. (NOTE.—Tinman's and lamp-maker's wares not otherwise mentioned are included in this category, and in their weight are included those of the handles, covers, trimmings, and other accessories of wood or horn, or any other material, which form part of the wares. Bits of every kind, filed or tin-plated, with or without curbs 500 r each, polished, with or without curbs 1000 r. (NOTE.—Bits, in parts, incomplete, or unfinished, will pay the same duties as the above.) Bits which have ornaments or trimmings of metal, galvanized, will pay a *surtax* of

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20%. Fire-bricks 650 r, springs for doors, lattices &c 350 r, screws up to ten millimetres in diameter 320 r, more than 10 millimetres in diameter 160 r, with head of brass 400 r, perfuming pans and braziers 500 r, nails, tin-tacks, hooks, pins and rivets, plain 100 r, with head of brass or bone 350 r, with head of ivory 3500, handles and latches for doors and drawers, with knobs of brass, falence, glass, or crystal 1000 r, wheels, tackle, pulleys, and other similar articles 350 r, heating apparatus for railroads free, for shops and similar purposes 15 r, pipes for boilers, water, gas &c 40 r. (NOTE.—Pieces joined will pay the same duties as the tubes, pipes galvanized or enamelled will pay a surtax of 25%.) Articles not elsewhere classified: cast, plain 90 r, painted, varnished, tinned, or galvanized with zinc or any other common metal 160 r, enamelled 330 r, gilded or silvered 500 r, wrought, plain 180 r, painted, varnished, tinned, or galvanized with zinc or any other common metal 350 r, enamelled 600 r, gilded or silvered 800 r, in parts, for the construction of houses and shops, small ships, bridges, walls, and other similar works, fitted or not, 15% a v. (NOTE.—Articles in this class, gilded or silvered, entirely or in part, will pay a surtax of 50%, those galvanized with zinc or any other common metal 20%. No difference will be made in collecting duties between articles simply painted or varnished, not mentioned above, and those plain.) Halberds for archers and similar arms, with or without handles 2400 r each, blunderbusses, *trabucos*, arquebuses, and similar arms, with or without bayonet, with barrel of iron 4800 r each, with barrel of bronze 8000 r each, scabbards for swords, foils, daggers and bayonets, of leather, &c., with chape of white or yellow metal 4000 r per doz, ditto without chape 3000 r, ditto of iron or of white or yellow metal 5000 r per dozen, balls of iron 30 r, of lead and ammunition lead 130 r, bayonets, sword-bayonets, and similar arms for guns, &c. 600 r each, barrels for guns, blunderbusses, carbines, &c. 1200 r, for pistols of any description 600 r, stocks for pistols 400 r, for other arms 600 r. (NOTE.—Stocks which have locks will pay, besides the above duties, those payable on firelocks. Swords, with hilt and scabbard gilded, for officers of inferior grade 9600 r each, with hilt gilded, and scabbard partly gilded, for superior officers, naval officers, &c. 4800 r each, with hilt and scabbard of white or yellow metal, or of steel of any kind 2900 r each, with hilt of white or yellow metal, or of steel, and scabbard of leather of any description 2400 r each, with hilt and scabbard of iron or leather of any kind 1300 r each, sabres of iron or steel, for cavalry soldiers 2000 r each, of iron or steel, as toys, with ornaments 2400 r each, plain 1000 r each, of wood, as toys 1000 rs each, guns and carbines, military, with or without bayonets or sword-bayonets, and with or without scabbard 2000 r each, hunting of every kind, single-barrelled 1700 r each, double-barrelled 4600 r each, quick matches, plain 1600 r, in cartridges, blank, of cardboard 1000 r, blank, of copper 2000 r, charged with shot or ball 400 r, firelocks for pieces of artillery, 2400 r each, for muskets, carbines, pistols, &c. 600 r each, foils and short swords for naval officers, &c., fancy or sharp, with scabbard of leather or shagreen skin 3000 r each, for naval officers, &c., with scabbard of white metal, plain or gilded 5800 r each, blades for swords, foils, for ornament or sharp, and for short swords 1300 r each, for sabres, fencing foils, and arms not otherwise mentioned 500 r each, lances or pikes, with or without handles 2000 r each, ramrods and wormscrews for guns 1000 r, nipples for fire-arms 1600 r, pistols of every kind, with one barrel 2400 r per pair, with two barrels 4800 r per pair, revolvers of any kind 500 r each chamber, powder of any kind 650 r, hilts for swords and daggers, gilded or ornamental 1200 r each, plain 600 r each, arms and other gunsmith's wares, ammunition, and war material, not otherwise mentioned 48% a v, knives (pen, fruit, &c.), with or without spring or other accessories, such as nail trimmers, corkscrews, or punches, with handle of bone, wood, horn, or common metal 1200 r per dozen, with handle of ivory, mother-of-pearl, or tortoise-shell 5800 rs per dozen, for cutting or pruning trees, &c. 3000 r per dozen, with accessories or veterinary instruments or travelling necessities, with handle of bone, wood, horn, or common metal 4000 r per dozen, with handle of ivory, mother-of-pearl, or tortoise-shell 10,000 r per doz (NOTE.—Knives with handles 4 centimetres long, or less, will pay duties as pen-knives, with a reduction of 50%.) Knives (larger), with handle of bone, wood, horn, or iron, &c., table and dessert 700 r per dozen, carving 320 s each, with handle of ivory, mother-

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of-pearl, tortoise-shell, or white metal, silvered or not, &c., table and dessert 2800 r per dozen, carving 1400 r each, without handle, table or dessert 600 r per dozen, carving 180 r each, shoemakers', saddlers', cooking, and similar knives, with or without handles, common 450 r pointed for killing and cutting up animals, hunting, travelling, and similar knives, with handle of bone, wood, horn, or iron, &c. 450 r, with handle of ivory, mother-of-pearl, tortoise-shell, or white metal, &c. 2400 r razors of every description, with handle of bone, wood, horn, or common metal 2000 r per dozen, with handle of ivory, mother-of-pearl, or tortoise-shell 10,000 r per dozen. (NOTE.—Razors which have more than one blade will pay for each blade in excess a surtax of 50%). Erasers for use in offices, with handle of bone, wood, horn, or common metal 1200 r per dozen, with handle of ivory, mother-of-pearl, or tortoise-shell 7800 r per dozen, butcher's knives, with or without guard 450 r. (NOTE.—Forks will pay a surtax of 50% whether imported with the knives or separately. Knives with case of leather, cardboard, or common metal, and those with handle or case of galvanized metal, will pay in the first case a surtax of 20%, and in the second case a surtax of 30%. Cases must be imported in the same package as the corresponding knives, and in equal number; if this number does not agree, the knives should be imported in their respective cases.) Scissors for tailors, &c., up to 16 centimetres long 1500 r per dozen, more than 16 centimetres long 3800 r per dozen, snuffers 1300 r per dozen, shears, small, for cutting flowers or for pruning 5800 r per dozen, large, with handles of wood, &c., for lopping 9600 r per dozen, with spring for clipping 2000 r per dozen, for cutting metal 5800 r per dozen, not otherwise mentioned 48% a v. (NOTE.—Scissors with handles of common metal, plain or galvanized, or furnished with leather, will pay a surtax of 20%. Knives, razors, scissors, and other articles of this class ornamented with gold or silver will pay double the respective duties, and those which have the handles of those metals will pay duty as if they were entirely of gold or silver.) Magnetic bars for compasses 160 r each, compasses, small, plain, or with meridian lines, watch shape or with pivot 800 r each, geological, with metal case and prismatic compasses (Kater, Bournier, &c.) 2000 r each, for land-surveying, large, with metal or wooden cases, plain 3200 r each, with glass and level 4800 r each with glass level, circle, and semicircle 10,000 r each, for ship's binnacle, and compasses not otherwise mentioned 15% a v, cases or boxes with drawing-pens, compasses, protractors, or with similar mathematical instruments, containing up to 12 pieces 800 r each, more than 12 and up to 18 pieces 1200 r each, more than 18 and up to 24 pieces 2500 r each, more than 24 pieces 5000 r each, with mineralogical necessities or accessories 18,000 r each, not otherwise mentioned 15% a v, cephalotribes, forceps, &c. 2000 r each, scalpels, with handles of wood 1000 r per dozen, compresses 2400 r each, stylets and tent-probes of common metal, steel, or iron, 800 r per dozen, instruments for performing amputation 6000 r per dozen, instruments, separate, for stopping, cleaning, lancing, and cauterizing teeth 1800 r per dozen, fleams for bleeding 1200 r per dozen, trusses from 2000 r to 24,000 r per dozen, lancets from 1000 r to 1800 r per dozen, files for dentists, 4000 r, pincers from 1600 r to 9600 r per dozen, caustic-cases, needle-cases, and stove-cases from 1000 r to 4000 r per dozen, scarifiers of every kind 640 r each, seals from 4000 r to 20,000 r, drums (roasters) for coffee, plain or common 350 r, for flour from 80 r to 350 r, vices, hand or fixed, for watchmakers, jewellers, &c. 300 r, for smiths, locksmiths, &c. 160 r, large, with steam motor, free, tape-measures from 1000 r to 6400 r, tools, utensils, and instruments, not otherwise distinguished, for the arts and trades 300 r, for chemical and pharmaceutical laboratories 15% a v, for any other purpose 48% a v, forges, small or portable, for blacksmiths 160 r, moulds, strainers and crystallizers for purifying or refining sugar, free, cranes, steam, hydraulic, &c. free, of any other kind, portable 130 r, fruit-presses 400 r each, files not elsewhere specified 500 r, locomotives, sleepers, turntables, brakes, and all other materials for railways, free, machines for use in agriculture, for mines, manufactories, and navigation, propelled by steam, water, gas, air or wind, electricity or by animals, or other motors, fixed, locomobile, or portable, free, machines (for domestic use) for cleaning knives 9,600 r to 18,000 r each, for clean-

Iron and Steel—*continued.*

- ing linen, cutting tobacco, bread, corks, for sewing, &c. 180 r, mills (coffee, pepper, &c.) 350 r, picks, pick-axes, hoes, and other large tools, for masons, stone-cutters, miners, &c., spades, large and small, rakes, scythes, weeding-hooks, and tools for tilling the ground, sickles, hedge-bills, pruning-knives, and similar instruments for cutting grass or sugar-cane, axes, mallets of iron for blacksmiths, masons, &c., shovels, with or without handles 80 r, pill moulds 650 r, printing presses of any kind free, presses for copying 240 r, for numbering and marking paper, &c. 2400 r, for packing or wrapping, for clipping, gilding, or sateneing paper, for lithographing, &c. free, nut-crackers from 800 r to 2000 r, corkscrews from 1300 r to 4000 r per kilo, needles for suture, without point 320 r per dozen, for seton, vaccine (Cooper, &c.), with point 1600 r per dozen, for cataract, &c. 4800 r per dozen, pravaz, for sub-cutaneous injections, &c. (small syringes) 1300 r each, of any description, with point of gold and silver 10,000 r per dozen, of silver 6000 r per dozen, amygdalotomes 2500 r each, apparatus, esmarch, &c. for astrictions 1200 r each, potain, dieulafoy, &c. 3500 r each, for fractures of arms and legs 2000 r each, bistouries with handle of bone, wood, horn, &c. 2000 r per dozen, with handle of tortoise-shell, ivory, mother-of-pearl, &c. 4000 r per dozen, keys, pincers, levers, &c. for extracting teeth 600 r each, boxes, portfolios, and cases for surgeons and dentists, with instruments for lancing, stopping, and drawing teeth, or with scalpel and other similar surgical instruments, up to 6 instruments 2000 r each, more than 6 and up to 12 instruments 4000 r each, more than 12 and up to 24 instruments 8000 r each, more than 24 and up to 50 instruments 13,000 r each, more than 50 instruments 15% a v, with instruments for autopsy, amputation, trepanning, cataract, accouchement, and other similar surgical instruments, up to 6 instruments 3000 r each, more than 6 and up to 12 instruments 6500 r each, more than 12 and up to 24 instruments 12,000 r each, more than 24 and up to 50 instruments 25,000 r each, more than 50 instruments 15% a v, with cupping glasses 2000 r each, empty boxes 1000 r, empty portfolios 500 r each. (NOTE.—Boxes or portfolios containing instruments which have the handles in ivory, tortoise-shell, or mother-of-pearl will pay a surtax of 50%.) C. Firearms, iron safes, cartridges, bedsteads, percussion caps, ammunition, gunpowder 35% a v, wire, galvanised or not, ploughs, chains, railway waggons of all kinds, plates and sheets galvanised or not, machinery, agricultural, hammer, locomotive engines, shovels, cranes, parts of machineries, gunpowder for mining purposes, bridges, iron and steel rails, anvils, screws 15% a v, steel unwrought in bars or sheets free, telegraph wire free, anchors of all kinds free, hoops free, printing machines free, mattresses 35% a v; Ch. Manufactured, as in sheets, rods, bars, hoops per 100 cattles 0'1'2'5, as in pigs 0'0'7'5, iron kentledge 0'0'1'0, wire 0'2'5'0, steel 0'2'5'0, machinery 5% a v, iron pans, iron rails, hoops, old, 5% a v; Cor. Iron, pig 5% a v, steel and manufactures 7½% a v, medical instruments, also agricultural implements free, gunpowder, under special licence, 20%, guns, sporting and accoutrement 30%, machinery 8%. D. Raw iron, pig, scraps, filings and old iron only fit for remelting free, iron and steel in bars, shaped or not, ballast iron, bloom iron, rails, &c., for railways, hoops, axle-trees, ships' knees, tires, cast gas and water pipes, and gas retorts 7d, plates or sheets, rough or simply coated to preserve from rust 7d, ditto other kinds 2/4½, bolts, spikes, nails, tacks with or without paper coverings, also steel springs, &c. 2/4½, iron and steel wares, polished, gilt or plated combined with ivory, metals, mother-of-pearl, &c., needles, steel pens, articles of tinplate, painted, bronzed, varnished or lacquered and gunsmiths' wares £1 17s 8d, coarse wrought iron wares, as anchors, anchor chains and cables, anvils, steam boilers, cisterns, gas and water pipes, parts of machines, large hammers, weights, also coarse cast goods, as ovens, cannon, bombs, balls, &c., retorts, ploughshares, parts of church clocks, &c. 2/4½, all other iron or steel wares not specially tariffed 7/1, instruments, mathematical, astronomical, surgical, &c. £1 17s 8d, locomotives £55 11s 1d each, arms and ammunition, cannon, mortars, bombs, balls, &c. 2/4½ per cwt, gunsmiths' wares £1 17s 8d, gunpowder and percussion caps 9/5; E. Agricultural implements 2½d per kilo, gunpowder prohibited, manufactured goods 2½d per kilo, pipings of 12 inch not forming part of machinery

Iron and Steel—continued.

- 5d per kilo, iron tacks 1d per kilo, cross-ties for tramways 2d per kilo, hand ramps 1d per kilo, rails for tramways and railroads 5d per kilo, medical instruments 1/0d per kilo; F. Iron, chips and filings and slag or dross from the forge free, cast, rough, in mass or moulded for ships' ballast and old broken cast iron 7½d, purified, called "mazée," and old broken wrought iron 7½d, in bars, square, round or flat, rails of all forms and sizes, angle and T iron, axles and tires in the rough 2/0d, wrought, crude in lumps or prisms, not freed from dross, containing 4% or more of scories 1/10, wrought, other kinds 2/0d, machine iron 2/5½, hoops exceeding 1 millimetre in thickness 2/5½, hoops of the thickness of 1 millimetre or less 3/0d, sheet, rolled or hammered exceeding 1 millimetre in thickness not cut 2/10d, ditto cut to any shape 3/0d, thin sheet and black iron in sheets of 1 millimetre or less in thickness cut to any shape 4/0d, ditto not cut 3/8, tinned (tin plates) or coated with zinc, lead or copper 4/10d, iron wire, plain or tinned, coppered or zincd, not exceeding ½ millimetre in diameter 4/0d, ditto other kinds 2/5½, steel in bars of all kinds and hoop steel 3/8, rails, axles or tires in the rough 2/5½, in sheet and bands, brown, not rolled, exceeding ½ millimetre in thickness 3/8, ditto of less than ½ millimetre in thickness 6/1, white, cold-rolled, of any thickness 6/1. (NOTE.—Steel in sheets and bands cut out or trimmed in any way pays 10% more than rectangular plates.) Steel wire, including wire for instruments 8/2, old broken steel 1/2½, iron manufactures of cast iron, moulded not turned or polished, chairs for railways, plates and other castings from the open mould 1/0d, cylindrical pipes (straight), rafters, columns, solid or hollow, gas retorts, solid bars, gratings and hearth plates, connecting rods, framework of machines and other articles without ornaments or fittings 1/3½, hollow ware and all other manufactures not included in the two preceding classes 1/7½, polished or turned 2/5½, tinned, enamelled or varnished 4/0d, rough articles of malleable cast iron 3/3, of wrought iron, iron wares (heavy), beams and girders, knees and girders for ships, ironwork for carts and waggons, hinges, clamps, large bolts, braces and other fastenings for doors and windows not polished nor turned, solid gratings, bedsteads, garden seats and furniture with or without ornaments or adjuncts of cast iron, steel or copper 3/3, locksmiths' wares, including iron locks or padlocks of all sorts, bolts and hinges of sheet iron, latches and flat bolts and other articles in wrought or sheet iron for door and window fastenings, &c., filed or turned 4/10d, woodscrews, bolts or hooks with screw threads, 7 millimetres or less in diameter 4/4½, above 7 millimetres in diameter 2/11, screws, screw bolts and nuts 3/3, nails forged by machinery 3/3, ditto by hand 4/10d, tubes of wrought iron, simply welded, of 1-3rd inch or more in interior diameter, 4/0d ditto of less than 1-3rd inch 7/4, ditto welded on a mandril or lap-welded 7/4, fittings for tubes of all kinds 7/4, household and other articles not specified of wrought or sheet iron polished or painted 5/8, enamelled, varnished or tinned 6/6, articles made partly of cast and partly of wrought iron not polished, if the weight of wrought iron is less than half the total weight 1/10, if half or more than half the weight be of wrought iron 2/11, polished, enamelled or varnished or with ornaments or adjuncts of copper, brass or steel 4/4½, anchors, cables, chains, &c. 3/3, cables of steel wire 10/2. (NOTE.—Materials and articles for the construction and fitting of merchant vessels are admitted free under certain conditions.) Steel wares, small articles of ornament, such as beads, brooches and thimbles 8/2, household articles and other wares of pure steel not enumerated 8/2, cutlery, common kitchen and butchers' knives and tailors' scissors £3 os 8d, common razors £4 15 3d, common other £6 15 11d, fine £9 15s 1d, needles for sewing less than 1'95 inch in length £4 15 3d, ditto of more than 1'95 inch in length £2 os 8d, tools of pure iron with or without handles 4/0d, ditto of iron tipped with steel with or without handles 5/6, ditto of pure steel and other tools unenumerated 8/2, instruments, surgical, astronomical, mathematical, chemical, &c. free, wire netting with meshes exceeding 2 centimetres 3/3, ditto less than 2 centimetres 4/0d, barbed fence wire 5/8, wire gauze of iron or steel 4/0d, buttons 16/3, pins of all kinds, fish-hooks of all kinds £1 os 4d, metal pens, other than gold or silver £2 os 8d, knitting needles, bodkins and similar articles 10/2, machines and machinery, steam engines, stationary or portable with or without boilers or flywheels 2/5½, ditto marine 4/10d, locomotives 3/8, tenders

Iron and Steel—continued.

of locomotives 2/10½, velocipedes and finished parts thereof £2 8s 9d, machinery other than steam engines, for spinning mills £2 8s 9d, for cleansing cotton, wool, flax and other textile fibres, &c. 2/5½, for weaving, for the manufacture of paper 2/0½, for printing 2/5½, for agricultural purposes 2/0½, for making sheets and fillets of cards 2/5½, carding machines, not furnished 3/8, lace-making machines 4/0½, steam boilers, including the furnace, of sheet iron, cylindrical or spherical, not tubular, but with or without 1, 2 or 3 heating tubes 3/3, tubular, of sheet iron, with tubes of wrought iron, copper or brass or of sheet iron riveted and all other iron boilers not of cylindrical or spherical shape 4/10½, of sheet steel of every shape 10/2, distilling apparatus, sugar-pans and copper boilers 4/0½, gasometers, open boilers, furnaces and stoves of sheet iron or of cast and sheet iron 3/5, machine tools and machines not enumerated containing 75% and more of cast iron 2/5½, 50 to 75% exclusive 4/0½, less than 50% 6/1, detached parts of machines, sheets and fillets of cards on leather, indiarubber or other materials, fitted £1 0s 4d, ditto not fitted 8/2, reeds or dents of reeds of iron or copper 12/2, of cast iron, polished, filed or adjusted 2/5½, of wrought iron polished, filed, adjusted or not without distinction of weight, including axles, springs and tires of wheels 3/8, of steel, polished, filed, adjusted or not, weighing more than 1 kilogramme 4/0½, weighing 1 kilogramme or less 8/2, of copper pure or mixed with other metals 8/2, steel springs for carriages, waggons and locomotives 4/0½, arms and ammunition side arms 16/3, fire-arms, muzzle loaders £4 17s 6d, ditto breech loaders £6 15 11d, ditto barrels in the rough £1 4s 3d, gunpowder prohibited, cartridges for sporting purposes loaded prohibited, ditto imported for the use of rifle clubs 10/2, percussion caps and cartridges for sporting purposes not loaded £1 4s 5d, miners' fuses, ordinary 14/3, ditto tape £1 0s 4d, ditto gutta percha £1 12s 6d; **G.** Chips and filings and slag or dross from the forge free, pig iron of all kinds, broken and scrap iron (not included above) 6d, iron and steel, hammered or rolled, in bars shaped or not 1/3½, tires, plough-shares, corner and angle iron, rails, bolts, chairs, and sleepers 1/3½. **NOTE**—Blooms, ingots still containing slag and rails in the rough 9d, iron in bars, or rolled wire for manufacture of cards (under special regulations) 3d, plates and sheets in the rough 1/6½, polished, varnished, lacquered, coated with copper, tin (tinplate), zinc or lead 2/6½, wire, plain or coated with copper, tin, zinc or lead, polished or varnished 1/6½, iron and steel wares, (1) very coarse (a) of cast iron 1/3½, (b) of wrought iron, as coarse parts of machines, bridges and parts thereof, anchors, chains and anvils, wire ropes, railway wheels, axles and spokes, buffers, cannon tubes, nails, windlasses, smiths' hammers, carriage springs, bed springs, drags, horse shoes, &c. 1/6½, (c) rolled and drawn wrought iron tubes 2/6½. (**NOTE**—Chains and wire ropes for towing free. (2) common (a) not otherwise enumerated, also in combination with wood 3/0½, (b) ground, varnished, coated with copper, zinc, tin, lead or enamel, but not polished or lacquered, also skates, hammers, axes, common locks, coarse knives, scythes, &c., 5/1, (c) handfiles, sword blades, planing irons, chisels, saws, gimlets, &c. 7/7, (3) fine (a) of fine cast iron, as light ornamental castings, polished and art castings 12/2, (b) of wrought iron, polished or lacquered, knives, scissors, knitting and crochet needles, swords, &c., plain or in combination with wood and other materials, provided they cannot be classified under the head of small ornamental wares 12/2, (c) sewing needles, pens of steel, clock works, &c., fire-arms of all kinds £1 10s 6d, instruments, surgical, mathematical, &c. free, machinery locomotives and locomobiles 4/0½, other machinery chiefly of cast iron 1/6½, ditto of wrought iron 2/6½, ditto of other common metals 4/0½, steam engines and boilers for use in shipbuilding free, cards 18/3, small ornamental wares £5 1s 7d, arms and ammunition, swords, &c., 12/2, sword blades 7/7, fire-arms £1 10s 6d, shot 3/0½, gunpowder free; **Gr.** Iron pig free, cast or wrought in bars, plates of all dimensions and for all purposes, angle iron, sheet iron, hoop iron free, and T iron of all dimensions free, rails for railways, points, bridges, bolts, chairs and other railway iron, tinne plates, iron wire, unwrought iron not specially mentioned free, iron wares, articles of iron for use in the construction of ships, such as plates, bolts, rivets, chains, pumps, anchors, windlasses, iron bands for masts or yards, &c. free, iron safes 6/5, agricultural implements of

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iron in combination with wood or not free, nails and screws $4/9\frac{1}{2}$, springs for furniture free, wire gauze $9/7\frac{1}{2}$, bird-cages and similar articles of wire gauze $\text{£}3$ 4s, small articles of cast iron, such as brackets, &c., for use in the manufacture of tables, desks, &c., buttons and buckles, gas fittings of cast iron $12/9\frac{1}{2}$, cast-iron wares not otherwise mentioned, painted, polished, varnished, &c., or not $3/2\frac{1}{2}$, needles for knitting or sewing not polished or gilt $8/$, ditto polished or gilt $16/$, padlocks and common locks of iron with or without ornamentation of bronze $19/2\frac{1}{2}$, lamps of all sorts $\text{£}1$ 12s, articles of wrought or sheet iron or tinplate for buildings, bridges, railways and similar uses, filed, plated, tarred, painted, varnished or not, but not polished or gilt $8/$, similar articles finely polished, gilt, or galvanised $16/$, tinplate wares not otherwise mentioned $12/9\frac{1}{2}$, steel in pigs or blooms, plates, bars or sheets, steel rails and points for railways, steel wire, free, steel wares, agricultural implements of steel in combination with wood or not free, files $16/$, springs for carriages, railway and other $3/2\frac{1}{2}$, packing and knitting needles and crochet hooks $16/$, needles for sewing in packets or cases (without allowance for the weight of the packets or cases) $\text{£}3$ 4s, all articles of steel not classed as fine wares not otherwise mentioned $16/$, fine steel wares not otherwise mentioned $\text{£}3$ 4s, instruments, surgical, mathematical and anatomical free, cutlery, knives (common) of iron with handles of wood, iron, common bone or composition $16/$, ditto with handles polished or gilt $\text{£}1$ 12s, knives with steel blades and handles of wood, iron, bone or other common materials $16/$, knives forks and razors with handles of bone, horn, wood or composition ornamented with plated silver with or without cases $\text{£}1$ 12s ditto with handles of ivory, tortoise-shell, mother-of-pearl or coral with or without ornamentation of gold or silver plate $\text{£}12$ 16s, penknives with handles of wood, composition, common bone or metal $\text{£}6$ 8s, ditto with handles of ivory, coral, tortoise-shell, mother-of-pearl or precious metal $\text{£}16$, swords and sabres $9\frac{1}{2}$ p per cwt, foils, daggers, &c $2/4\frac{1}{2}$, surgical instruments free, motive machinery, boilers of all kinds, sucking and forcing pumps, agricultural machinery, such as reaping machines, thrashing machines, &c., fire engines and machinery of other descriptions with the exception of those specially mentioned, detached parts of machinery free, mincing machines, roasting jacks and other mechanical appliances for household use $\text{£}1$ 12s, coffee mills of iron or steel, polished, gilt, enamelled or not, scales of all sorts with their weights $12/9\frac{1}{2}$, sewing machines and other machinery for use in domestic industry free, velocipedes $8/$ each, apparatus for watering streets, &c. $12/9\frac{1}{2}$ per cwt, arms and ammunition, side arms $9\frac{1}{2}$ each, yataghans, handjars, &c. $2/5$ per cwt, foils, daggers of all kinds $\text{£}8$, fire-arms for the army with or without bayonet free, others, single-barrelled muzzle-loaders $1/7\frac{1}{2}$ each, ditto double barrelled ditto $9/7\frac{1}{2}$, ditto single-barrelled breach-loaders $8/$, ditto double-barrelled ditto $16/$, pistols $4/$ per pair, revolvers $6/5$ each, detached parts of fire-arms, such as barrels, screw-plates, &c., for pistols, revolvers and other fire-arms, bullet moulds and similar articles not specially mentioned $19/2\frac{1}{2}$ per cwt, gunpowder for fire-arms $\text{£}1$ 18s 5d, ditto for mining purposes $6/5$; **HI.** Manufactures free, medical instruments $10/$, agricultural implements free; **Hay.** Bar $2/6$ per cwt, sheet $2/1$, galvanised $3/1\frac{1}{2}$, sadirons $4/2$ per doz pairs, tailors' irons $5/2\frac{1}{2}$ do, hoes $4/2$ do, horse shoes 4 set of four, plane irons 1 rod per doz, shovels $3/1\frac{1}{2}$ do, knives and forks, cutlase, and do. agriculture, from 4 d to $8/4$ per doz, pots $3/1\frac{1}{2}$, hammers, assorted $1/8$, braces and bits $4/2$, bits without brace $2/1$, gimlets $1/0\frac{1}{2}$, horse bits $1/0\frac{1}{2}$, plated $12/6$, ordinary $10/5$, common $8/4$, all per doz, mortars and pestles 2 per lb, moulds for bullets $3/1\frac{1}{2}$ per doz, mills, coffee 3 d each, tobacco $4/2$ each, pincers, jewellers' and shoemakers', and crowbars $1/8$ per doz, platines, for baking cassaves 1 rod each, stoves $3/1\frac{1}{2}$ per cwt, furnaces $1/0\frac{1}{2}$ do, hinges $4/2$ per doz pairs, frying-pans $6/3$ do, rivets $6/3$ per cwt, castors for tables $1/0\frac{1}{2}$, rat traps, garden rakes, adzes $2/1$, axes $4/2$, hatchets $3/1\frac{1}{2}$, curry combs $4/2$, all per doz, springs for carriages and watches 20% a v, hinges for trunks and chests 2 in to 4 in $1/8$, 7 in to 12 in $3/1\frac{1}{2}$, 13 upwards $4/2$, all per doz pairs, swords, cavalry free, officers' plain $4/2$ each, fine do $6/3$, ordinary brass sheath $2/1$, ordinary leather sheath $1/8$ each, grass scythes per doz, $1/8$, locks, door, assorted sizes $4/2$ do, trunk $1/0\frac{1}{2}$ do, bolts for doors $1/0\frac{1}{2}$ do, large $2/1$, saws, large and medium, unmounted $8/4$ do small, unmounted $6/3$

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- do, augers, assorted $1/0\frac{1}{2}$ do, corkscrews $1/8$ do, trowels $2/1$ do, pipe for water $4/2$ per cwt, needles, sewing $5d$ per 1000, sail $1/0\frac{1}{2}$ awls, without handles $1/0\frac{1}{2}$ per doz, with handles $6d$ do, rings for awnings, tents $1/0\frac{1}{2}$ per gross, railings $4/2$, railings, gates, and balconies $8/4$ per cwt, chain for cables $4/2$ do, other $9/4$ do, chisels, masons', joiners', rod per doz, scissors, tailors', over $6in$ rod do, ladies' fine $2/1$ do, do common rod do, bed keys $2/1$ do, bed screws $3/1\frac{1}{2}$ per gross, nails $3/1\frac{1}{2}$, screws under $2in$ $3d$ per gross, over $2in$ $1/8$ per doz, squares $3d$ each, axles free, wire $4d$ per lb, bedsteads $12/6$ each, gunpowder $2\frac{1}{2}d$ per lb, medical instruments $20/6$ a v; H. Iron, raw, old iron, broken pieces and filings of all sorts, iron cast in rough blocks or pieces, bar, hoop, rod, sheet, angle or T iron galvanised or not, rails, chairs for rails, cast and wrought water and gas pipes and iron and steel wire free, anchors, chains, and capstans for ships free, tin-plates, nails and iron-wire ropework free, iron wares cast or wrought 5% a v, tin-plate wares not varnished nor painted 5% , instruments, mathematical, surgical or physical, 5% a v, steel in bars, sheets, rails or chairs for rails, free, steel wares, small wares, 5% , machinery and steam engines, &c. and tools for agriculture and manufactures, cards of iron wire free, arms and ammunition, guns, pistols, swords, sabres and other war implements mounted or not and bullets for guns or pistols 5% a v, cannon of mixed metal $6/4$ per cwt, ditto of iron $1/0\frac{1}{2}$, ditto balls $7\frac{1}{2}d$, gunpowder $4/2\frac{1}{2}$, shot free; I. Iron ores, slag free, iron scrap, scalings and filings of iron, cast iron, and steel $4\frac{1}{2}d$, cast iron: pig, $4\frac{1}{2}d$, manufactured in rough castings: (1) in articles of furniture for ornament or for domestic use $3/3$, (2) in other articles $2/0\frac{1}{2}$, drain pipes $7/3$, manufactured in castings, planed, turned, or worked in any other manner: (1) in articles of furniture for ornament or for domestic use $4/0\frac{1}{2}$, (2) in other articles $2/10$, manufactured in castings, garnished with other metals, tinned, enamelled, etc.: (1) in articles of furniture for ornament or for domestic use $7/4\frac{1}{2}$, (2) in other articles $4/10\frac{1}{2}$, raw iron in blooms (*maselli*) and steel ingots $1/7\frac{1}{2}$, iron and steel, wrought*: (a) rolled or hammered in bars of any section: (1) having a dia. of more than 7 millimetres $2/7\frac{1}{2}$, (2) having a d.a of 7 millimetres and less but more than 5 millimetres $3/0\frac{1}{2}$, (3) having a d.a of 5 millimetres or less (excluding wire) $3/7\frac{1}{2}$, (b) rolled or hammered in wire: (1) having a dia of from $1\frac{1}{2}$ up to 5 millimetres $4/10\frac{1}{2}$, (2) having a dia of $1\frac{1}{2}$ millimetres or less $6/1$, (c) in plates and sheets: (1) of 4 millimetres and above in thickness $2/10$, (2) of above $1\frac{1}{2}$ millimetres and up to 4 millimetres in thickness $4/0\frac{1}{2}$, (3) of $1\frac{1}{2}$ millimetres in thickness and less $4/10\frac{1}{2}$, (d) in tubes (1) of plate iron of the thickness of 4 millimetres and above $4/10\frac{1}{2}$, (2) of above $1\frac{1}{2}$ millimetres and up to 4 millimetres in thickness $6/1$, (3) of $1\frac{1}{2}$ millimetres in thickness and less $6/10\frac{1}{2}$, forged or cast in anchors, axles, anvils, and other rough manufactures: (a) weighing 50 kilo or more $4/0\frac{1}{2}$, (b) weighing less than 50 kilo $4/10\frac{1}{2}$, rails of iron and steel $2/5\frac{1}{2}$, railway carriage frames $6/6$, wire gauze, as the wire of which composed with 15 lire per 100 kilo additional, iron and steel of second fabrication (manufactured articles) (a) made principally of thick iron and steel: (1) in articles planed, filed, turned, drilled, etc., on a small part of their superficies only $4/3\frac{1}{2}$, (2) in articles planed, filed, turned, drilled, etc., on the whole or a large part of their superficies $5/6\frac{1}{2}$, (3) in articles tinned, coated with lead or zinc, and varnished $6/3\frac{1}{2}$, (4) in articles oxidised, enamelled, nickelled, or lacquered, garnished with other metals, or combined with glass or ceramic products $8/1\frac{1}{2}$, (b) made principally of thick iron and steel: (1) in articles planed, filed, turned, drilled etc., on a small part of their

* Under this heading are included iron and steel simply rolled or forged, every subsequent operation causing the iron and steel to be classed as manufactured (*di seconda fabbricazione*) to which category iron forgings of less than 1 kilo in weight are referred if they have received any finish which justifies this treatment. Rolled or wrought iron, for the construction of wagons, bridges, machinery, or buildings, when not drilled or otherwise worked, is classed under the present heading, in which annealed plates are also comprised. Plates cut (not simply filed) for a special use pay 1 lire of duty more than uncut plates.

† Only iron shaped in sections adopted by railways can enter as rails; and, further, the section must be the same throughout for the whole length of the bar (*stemma*).

Iron and Steel—continued.

superficies only 6/3 $\frac{1}{2}$, (a) in articles planed, filed, turned, drilled, etc., on the whole or a large part of their superficies, and in articles tinned, coated with lead or zinc, and varnished 7/2 $\frac{1}{2}$, (3) in articles oxidised, enamelled, nickelled, or lacquered, garnished with other metals, or combined with glass or ceramic products 12/3 $\frac{1}{2}$, iron plates or sheets, coated with zinc, lead, or simply galvanised: (a) plain: (1) above 1 $\frac{1}{2}$ millimetres in thickness 5/3 $\frac{1}{2}$, (2) 1 $\frac{1}{2}$ millimetres in thickness and less 6/1, (b) worked (*lavorate*): (1) in plain articles made of plates above 1 $\frac{1}{2}$ millimetres in thickness, 7/8 $\frac{1}{2}$ * (2) ditto of 1 $\frac{1}{2}$ millimetres in thickness and less* 8/6 $\frac{1}{2}$, (3) in articles combined with other materials, the plates being above 1 $\frac{1}{2}$ millimetres in thickness 9/4, (4) ditto of 1 $\frac{1}{2}$ millimetres in thickness or less 10/2 $\frac{1}{2}$. iron plates or sheets coated with tin, copper, or only oxidised: (a) plain: (1) above 1 $\frac{1}{2}$ millimetres in thickness 5/10, (2) 1 $\frac{1}{2}$ millimetres in thickness and less 7/3 $\frac{1}{2}$, (b) worked (*lavorate*): (1) in plain articles made of plates above 1 $\frac{1}{2}$ millimetres in thickness† 8/11 $\frac{1}{4}$, (2) ditto 1 $\frac{1}{2}$ millimetres in thickness and less 8/11 $\frac{1}{4}$, (3) in articles combined with other materials, the plates being above 1 $\frac{1}{2}$ millimetres in thickness 9/9, (4) ditto of 1 $\frac{1}{2}$ millimetres in thickness and less 10/6 $\frac{1}{2}$. steel: tempered in bars and rods 4/10 $\frac{1}{2}$, tempered in wire 6/1 $\frac{1}{2}$, springs of any kind 7/3 $\frac{1}{2}$, other manufactures 10/2 $\frac{1}{2}$, tools and implements: (a) common: (1) hatchets, ploughs, ordinary agricultural implements, spades, etc. 5/6 $\frac{1}{2}$, (2) ditto polished, varnished, coated with zinc, lead, galvanised, coppered, tinned, even partly garnished with other metals, but neither lacquered, enamelled, nor burnished 6/3 $\frac{1}{2}$, (3) ditto enamelled, lacquered, oxidised, but not burnished, hardware (*mercerie*) excluded 8/1 $\frac{1}{2}$, (b) fine: (1) burnishing sticks, chasing tools, gilders', carpenters', farriers', hairdressers', printers', and other artisans' tools, &c. 7/1 $\frac{1}{2}$, (2) ditto enamelled, lacquered, oxidised, but not burnished, hardware (*mercerie*) excluded 8/11 $\frac{1}{4}$, (c) files and rasps: (1) having from 1 to 10 cuttings measured at right angles (*normalmente*) to the cuttings 5/10, (2) from 11 to 20 cuttings measured as above 6/7 $\frac{1}{2}$, (3) having 21 or more cuttings measured as above 8/1 $\frac{1}{2}$, guns, complete £32 per 100, parts of £6 1s 11⁰4d per cwt, pistols and revolvers, complete £14 per 100, parts of £14 4s 5⁰6d per cwt, sabres and swords, mounted £8 per 100, gunpowder, blasting, £3 0s 11⁵2d, sporting £5 1s 7¹4d, all other explosive material £6 1s 11⁰4d, empty cartridges, without caps £1 4s 4⁰8d, ditto with caps £3 0s 11⁵2d, ditto loaded, also percussion caps £5 1s 7¹4d, shot, etc. 2/0³84d, articles of iron and steel, burnished £1 12s 6d, needles and pins £2 0s 7¹4d, machinery: (a) steam engines, fixed or semi-fixed, with or without boilers 4/10 $\frac{1}{2}$, (b) boilers: (1) multitubular 5/10, (2) all other 4/10 $\frac{1}{2}$, (c) prime motors by water or wind power and hydraulic machinery 4/0 $\frac{1}{2}$, (d) locomotives without tenders 5/10, (e) traction engines, (f) marine engines 4/10 $\frac{1}{2}$, (g) agricultural machinery of all kinds 3/7 $\frac{1}{2}$, (h) spinning machinery, (i) machinery and looms for weaving 4/0 $\frac{1}{2}$, (j) machine tools for working wood and metals 3/7 $\frac{1}{2}$, (k) dynamo-electric 12/2 $\frac{1}{2}$, (l) sewing machines: (1) without stand and hand machines 12/2 $\frac{1}{2}$, (2) others with stand 10/2, (3) parts of 12/2 $\frac{1}{2}$, (m) machinery not otherwise described 4/0 $\frac{1}{2}$, (n) detached parts of machines 4/5 $\frac{1}{2}$, gasometers and their accessories, 3/3, apparatus for heating, distilling, refining, etc. 8/1 $\frac{1}{2}$, scientific, optical, chemical, physical, and surgical instruments: (a) optical, constructed in bronze, brass, and steel, for purposes of measurement and observation, telescopes, lenses, etc. £2 10s 9 $\frac{1}{2}$ d, (b) physical, chemical, mechanical, not furnished with any optical instruments, or with graduated circles, etc., £1 10s 5 $\frac{1}{2}$ d, (c) instruments included in the two preceding categories, but in which iron prevails 12/2 $\frac{1}{2}$, carding apparatus £1 10s 5 $\frac{1}{2}$ d, railway wagons and tenders: goods trucks and tenders 4/0 $\frac{1}{2}$, third-class carriages 5/10, second class 6/6 $\frac{1}{2}$, first class 7/8 $\frac{1}{2}$, parts of railway carriage frames 6/6, tanks for locomotive tenders 12/, trays, plaques, saucers, etc., made of plain metal sheets £1 4s 4⁰8d, cutlery, kitchen and pocket knives, curriers' knives, hand saws, saw blades, &c., with handles of common wood 7/1 $\frac{1}{2}$, table and pocket knives with finer handles or with common wood, ornamented with "rackfong," &c.,

* Corrugated sheets are included under these headings.

† Composite carriages pay the duty of the highest class.

Iron and Steel—*continued.*

- common £2 0s 8d, do. do. fine £4 1s 3d, do. with handles of horn or bone without ornament £1 12s 6d, with ornament £2 0s 8d, fine do. £4 1s 3d, table knives with handles of silver £18 5s 0d, table and pocket knives with handles of mother of pearl, tortoise shell, or ivory £3 1s, cutlery of all kinds, plated or ornamented with metal £4 1s 3d, surgical instruments £1 10s 6d; J. Iron in rods, bars, plate, sheet, nails, hoop, and band 30 cents per 100 cattles, in pigs 15 cents, kentledge 6 cents, in wire 80 cents, steel 60 cents; M. Steel in the rough, excepting mining bars gw 0'05, manufactures of iron, steel, or tin not otherwise distinguished gw 0'20, manufactures wholly of iron or steel exceeding 20 kilos in weight gw 0'10, iron nails, wire nails, screws, nuts, and rivets 0'10, iron in the rough, round, flats, stamps, dies, sledges, and anvils of different shapes gw 0'05, iron furniture of all kinds, with or without marble tops or mirrors gw 0'20, barbed iron wire for fences, with staples for fixing it free, steel bars for mines, cylindrical or octagonal free, iron or steel wire cables of any thickness free, iron or lead piping of all sizes free, hoes, common cane knives, without sheaths, scythes, sickles, harrows, rakes, shovels, pickaxes, spades and mattocks for agricultural purposes free, machinery and apparatus of all kinds, not otherwise distinguished, for industrial, agricultural, mining, artistic, and scientific purposes, and detached part of the same, if not liable to be used otherwise than as machinery free; empty iron iron barrels free. NI. Factory and steam machinery, engines, machinery, apparatus and tools for agricultural purposes, factory and steam work, for mining purposes and artisans' work, also portions thereof as recognised by the officials free, iron in bars, pieces, rods, or plates, railway rails, joint and binding plates for railways, water pipes, iron gas pipes, axles, floes, and wheels (4). cast or wrought iron cargo boats, frames of iron buildings, sheds, or warehouses, iron bridges and parts thereof, iron roofs and gutters, whether galvanised or not, bolts and nails, iron wire, ships' anchors, chains, capstans, and tackle, telegraph wire and cables free, iron and ironwork, cast, wrought, rolled, &c., not separately mentioned 10% av, steel in bars, sheets, or plates free, other 10% a v; Nic. Per lb. machinery, all kinds free, guns and caps for guns £3 15s 1d; cannons for troops, prohibited, ingots or plates 3d, tools 1½d, shovels and spades 2d, buckles for pants, saddles, harness and similar use 3d, all tins with manufactures 3d, furniture 4d, machetas and bush knives and swords, with or without sheath 5d, common percussion guns, smooth bore 5d, percussion and repeating rifles, rifled barrels, or with special permit of Government 10½d, measures and rules for all trades, knives, penknives, razors, scissors, shears, table knives, and like goods 1 3/4, pins, hooks, eyes, and fish hooks of all kinds and metals 2 1/4, buttons of any kind of metal, swords and sabres with sheath, buckles for braces and belts of all kinds 2/7, pistols and revolvers, 4 3/4. N. Pig and ballast iron, bar, bolt, and hoop iron, axles, crowbars, ships' knees, angle and T-iron, and other rolled and shaped iron and smelted pieces, and rails, plates, &c., for railways, steel, ships' anchors, chains, cables and iron links, all kinds, plates of all kinds, and shaped plates, of 1/4 millimetres or more in thickness, for steam boilers and other purposes, wrought pipes, flues, and fencing posts, nails, spikes, bolts, screws, nuts, clinch-nails, and rings, coated or not with tin, copper, or zinc, wire, iron or steel, plain, coated or not with copper or zinc free, cast iron wares, fine, polished, painted, bronzed, varnished, galvanised or not, weighing 5 kilogrammes or less each, 19/9, over 5 but not over 25 kilogrammes each 11/3, over 25 kilogrammes each free, coarse, tubes or retorts, pots or kettles, with or without covers, and cast wares not otherwise mentioned, wrought iron and steel wares, bedsteads, fireproof chests, and copying and stamping machines, manufactures of iron or steel wire, ropes and chains, and wire gauze free, all other manufactures of iron or steel wire 5/8, door handles, fire-irons, hinges, garden-shears, hand-mills, &c., knobs, door bolts, scissors (unpolished), knitting-needles, chopping knives, clasps, &c. 8/6, thimbles, steels, corkscrews, scissors (polished), locks, snuffers, skates, spurs, swords and sword blades 19/9, knives and forks with silver or plated handles, penknives and razors, with or without cases £2 5s 2d, other knives and forks 19/9, articles of plate or sheet iron under 3/4 millimetres in thickness, trays, bread-trays, and dishes of all kinds 19/9, other lacquered,

Iron and Steel—*continued.*

varnished, enamelled, glazed, bronzed, or painted wares 8/6, other kinds, including articles coated with zinc 5/8, wrought iron wares not otherwise enumerated, gilt, silvered or plated £1 19s 6d, ditto polished or nicked 19/0, ditto other kinds 5/8, needles, sewing, embroidery, darning, and crochet, also hooks and eyes, pins, and hairpins £1 9s 11d, tools and implements for artisans, or for use in manufactures and agriculture, not otherwise specified, fish-hooks, and artificial flies, &c. free, pens (including weight of cards, boxes, &c., £1 13s 11d, false jewellery, with or without mixture of other materials, as bracelets, chains, &c., £2 5s 2d, steel beads £3 7s 9d, machinery of all kinds, ploughs and harrows, cards for carding machines, combs, heckles and shuttles free, arms and ammunition, cannon, mortars, bombs, &c. free, guns and pistols and parts thereof, except unfinished gun barrels £1 9s 11d, gun barrels unfinished free, swords and sabres, with or without sheaths 19/0, gunpowder and cartridges, with or without percussion caps free, shot 4/6½, percussion caps for guns £3 15s. 1d; **Per.** Iron for agricultural and mining 5% a v, other classes from 5 to 45% a v, steel plates and bars free, agricultural and mining 5%, other classes from 10% to 45% a v, hunting gunpowder 45%, ditto for cannon and small arms, prohibited medical instruments 45% a v; **PR.** Per 100 kilo, iron, cast in pigs, and old iron 87 cts, pipes and ordinary manufactures, with coatings of lead, tin or zinc 1 peso 38 cts, fine manufactures, with coating of porcelain and ornamented with other metals 5 pesos 80 cts, forged, and steel in bars of all kinds, straps, axles, tires, troops, and springs for carriages 2 pesos 32 cts, ditto, in wire, nails, screws, and pipes 3 pesos 77 cts, ditto, in ordinary manufactures, with coating of lead, tin, or zinc, painted or varnished 3 pesos 68 cts, ditto, in fine manufactures, with coating of porcelain and ornamented with other metals, and those not otherwise mentioned 7 pesos 25 cts, needles, pens, pieces for watches, and other like articles of iron and steel 110 pesos, knives, carving knives, razors, scissors for sewing, and pen knives 40 pesos, arms, side, and blades for same 87 pesos, arms, fire, portable, and parts 174 pesos, gunpowder per kilo 9 cs, machinery, and parts 5 pesos 98 cts, sewing machines, and parts 23 pesos; **P.** Per kilo, iron, cast, in lumps or in sheets, not manufactured 4% a v, iron in lumps or sheets, tinned, galvanized, covered with zinc or lead, plain, painted, or prepared in any way 3 r, iron, wire-drawn 3 r, ditto covered with wood, silk, cotton, linen, or paper 300 r, iron nails of every description (including those with brass heads) 55 r, iron tubing 15 r, iron manufactures not otherwise mentioned, rough or painted 42 r, iron, manufactured, not otherwise distinguished, polished, gilded, varnished, enamelled, &c. 85 r, iron manufactures not otherwise classified, exceeding 100 kilos in weight 10 r, iron, wrought or in tubes 4% a v, iron, wrought, chains and cables, not otherwise specified 15 r, iron, wrought, manufactures, not otherwise classified, in the rough or painted 108 r iron, wrought, polished, gilded, varnished, or enamelled 200 r, iron, wrought, not otherwise specified, each article weighing more than 100 kilos 22 r, iron, wrought, tin wares 350 r, iron manufactures, wire-drawn 70 r, steel, cast, not otherwise mentioned 4% a v, steel springs for vehicles 30 r, steel wire 70 r, ditto for umbrella frames, round 20 r, other 35 r, steel cutlery, scissors 600 r, steel cutlery not otherwise mentioned 350 r, steel, manufactured, not otherwise specified 240 r, implements and tools and separate pieces of machinery for industrial purposes (glass, crystal, or earthenware) 5 r, ditto, pieces for industrial purposes and for steam engines, not otherwise mentioned 25 r, ditto for agricultural and gardening purposes 4 r, steam machinery up to 15 real horse power 20 r, ditto up to 50-horse power 15 r, machinery, industrial, not elsewhere specified 15 r, anchors, chains, and other articles of metal for sailing and fishing purposes 12 r; **R.** R. Iron and steel, manufactured iron, cast and wrought in lumps, rods, round or square bars, also in any form not shaped for direct use, old iron, steel, cement, or cast in any form, not shaped for direct use, iron and steel rails of all kinds, and points, iron tires and hoop iron generally, free, black plates, sheet iron 1/12, tin-plate and other iron plates, polished, enamelled, or galvanized 1/10, steel plates and sheets polished or not 4/1, iron wire, black, polished, or coated with tin, copper, zinc or lead 2/0½, steel wire and steel strings for musical instruments 8/2, wire gauze, coarse, containing four threads or less per centimetre and sieves thereof 2/3½, other wire

Iron and Steel—continued.

gauze and sieves thereof 6/5, iron and steel wares, coarse iron castings and parts of machines roughly cast, not further manufactured, partly filed, polished, turned or not free, iron castings ornamented, polished, enamelled or varnished, cast cooking utensils enamelled, also small cast articles ornamented or polished, varnished or bronzed, combined or not with other common materials 9/9. (NOTE.—These articles, when gilt or silvered, will be charged at the rate of 19/6 per cwt.) Wrought iron wares (ferronnerie), (a) beams and other coarse pieces of iron shaped for the construction of houses and bridges, ironwork for railway and other carriages, &c. 2/5½, (b) other wrought iron wares (ferronnerie) 2/0½, nails of cast or wrought iron and wire nails free, screws of iron and steel of all sizes, with or without nuts 4/1, pipes and tubes 2/10½, springs for carriages and wagons 1/7½, ships' anchors and chains 1/7½, other iron chains of all sizes 2/0½, gratings for gardens, courts, or balconies, not gilt or silvered 11/4, common articles of black sheet iron not polished, tinned, or enamelled, combined or not with cast iron 9/9, safes or boxes of iron or steel 10/2½, common iron bedsteads, plain painted only, without ornaments other than those of cast mouldings, not gilt or silvered, also garden seats, &c. 11/4, superior iron bedsteads, painted, varnished, bronzed, &c., also iron furniture for rooms, gilt, silvered, upholstered or not 12/3, unenumerated articles of iron and steel, common not tinned, enamelled or polished, with the exception of tools, cutlery and machinery 12/3, unenumerated articles of iron or steel, semifine, plated or enamelled 6/1, articles of tin-plate of all kinds simply wrought, painted, enamelled, varnished or not, combined or not with common wood, but without ornamentation, and not gilt or silvered £1 4s 5d, articles of tin-plate of all kinds, or of sheet iron finely wrought, painted, enamelled or galvanized, or even gilt or silvered, combined or not with other materials except precious metals, ivory or mother-of-pearl £2 0s 8d, fine articles of iron and steel (except cutlery and surgical instruments), combined or not with other common materials £4 1s 4d, extra fine articles of steel, i.e., jewellery £4 1s 3d, cast articles ornamented, polished, varnished or bronzed, mixed or not with other common materials 16/3, tools, agricultural, with or without handles free, scientific instruments and surgical apparatus free, common cutlery of iron or steel, common scissors, in combination with wood, bone, horn or other common materials 8/2 per cwt, cutlery fine, of polished iron or steel, as knives, penknives, razors, scissors of all kinds, mounted in other materials, with the exception of gold and silver £3 1s, needles for knitting and crochets, and fish hooks, sewing needles of all sizes, including those for sewing machines £3 5s 1d, pins, hooks, and hair pins of iron £1 0s 5d, arms and ammunition, side-arms other than those ornamented or mounted with materials paying a higher rate of duty £2 0s 10d, firearms of all kinds and parts thereof, exclusive of arms of war £4 1s 4d, arms of war and parts thereof, gunpowder of all kinds, cartridges, ball and shot prohibited, percussion caps, duty on material of which composed, machinery, cast-iron machinery of all kinds 3/8 per cwt, complete machinery of iron or steel, with the exception of steam engines and agricultural and industrial machinery, parts and fittings of machines weighing not more than 25 kilogrammes (about ½ cwt) 7/4, machinery for industrial and agricultural purposes free, steam engines, stationary or locomotive free, machines and complete parts of machines constructed of common metals other than iron and steel, or in the construction of which other metals than iron or steel predominate in weight 8/2; **Rus.** Iron, cast, in pigs, bars, and scrap 2/1½, iron, wrought, and steel scrap 3/11½, bars, shaped or not, and wrought iron of all kinds, excepting that mentioned below, also iron in blooms, puddled blooms, and mill bars 3/11½. NOTE.—Iron and steel rods less than ½ in in thickness or width are regarded as wire. In sheets and plates exceeding 18 in in width, and all shaped iron or steel of more than 7 in in thickness, also fine descriptions having a breadth or diameter of from ½ in to ½ in inclusive 5/11, rails for railways 4/11, tin plate and sheet iron coated with copper, zinc, or other common metal 13/10,* cast iron manufactures, coarse iron castings, such as firebars, plates, pipes, beams, pillars, and cast iron appurtenances for railways and their rolling stock 5/11, enamelled cast iron utensils 9/4, cast iron articles moulded, turned, painted, polished, bronzed, tinned, &c., with or without parts of wood, copper, or

Iron and Steel—*continued.*

bronze, also all unfinished articles of malleable cast iron 11/10, iron and steel smiths' work of all kinds, filed but not polished, such as anchors, nails not otherwise specified, hooks, bells, and mortars, and wrought iron appurtenances for railways and their rolling stock 8/10, iron and steel boiler work, such as boilers, tanks, boxes, pipes, bridges, and all articles of sheet iron or steel not otherwise specified 11/10, finished articles of iron or steel not otherwise enumerated, with or without parts of copper, bronze, or wood, weighing more than five funt each 11/10, ditto weighing less than five funt each £1 4s 7d, padlocks and other locks, as also screws of all kinds £1 19s 5d, manufactures of tin plate, also tinned galvanised and enamelled iron ware, not painted £1 7s 1d,* painted, gilt, or ornamented £2 14s 2d,* needle wire £1 19s 5d per cwt gross, iron and steel wire, and all iron rods of less than $\frac{1}{2}$ inch in thickness 10/10, wire of less than $\frac{1}{2}$ inch in diameter, galvanised or tinned, wire nails, bolts, rivets &c., also strings for musical instruments, inclusive of the weight of the rollers on which wound, wire rigging, and submarine cables £1 9s 7d, manufactures of iron and steel wire, and also wire covered with cotton, silk, or other threads, frames for parasols and umbrellas, bird cages, &c. £1 7s 1d, needles, packing, harness, saddlers' and sail-makers' needles, also knitting needles £5 18s 3d,† sewing, and all other needles except those mentioned above £10 16s 9d,† cutlery set in common materials, shears (except sheep shears), scissors, tweezers, and knife blades, finished or not £7 16s 2d, set in plated silver and other metallic compositions, ivory, whalebone, tortoiseshell, and mother-of-pearl, or in common materials, with ornaments of bronze, gold, silver, whalebone, tortoiseshell, ivory, and mother-of-pearl £15 12s 4d, peasants' pocket knives set in common metal or other cheap materials £3 5s. (NOTE.—Cutlery set in gold or silver pays as articles of gold or silver.) Scythes, sickles, chaff-cutters, and mowers, sheep shears, spades, rakes, hoes, forks, and shovels 13/9½, tools of iron or steel not otherwise enumerated 13/9½, machinery, &c., locomotives 19/8, tenders for locomotives, portable engines, and other steam engines, fire engines, and all other machinery, and detached parts thereof 11/10, machinery and apparatus, and detached parts thereof, composed wholly or principally of copper £1 9s 7d, agricultural machinery, as ploughs, harrows, &c., not worked by steam 4/11, platform cars and coal trucks, per axle £25 6s 8d, goods vans and cistern cars £38, 3rd class passenger vans £47 10s, 2nd and 3rd class composite carriage £52 5s, 2nd class carriages £56 4s 2d, 1st and 2nd class composite carriages £64 18s 4d, 1st class carriages £73 12s 6d, 2-horse tram cars £53 16s 8d, 1-horse tram cars £39 11s 8d. (NOTE.—Duplicate parts of agricultural machinery and instruments pay duty according to the materials of which composed.) Weights and scales of every kind, with fittings £1 1s 8d,† instruments, surgical, mathematical, physical, &c. £3 5s,* arms and ammunition, swords and sabres £11 16s 5d, fire arms and appurtenances thereof £9 17s,† shot 8/8,† air guns, gunpowder, cannon, mortars, bombs, shells, &c. prohibited; **Sal.** Iron, bar, sheet, g w, per lb 1d, buckets, per doz £1 4s 8d, buckles, per gross, 2/6, bells for houses, per lb 7½d, beds, g w, ditto 2½d, ditto with bronze, g w, ditto 9½d, chains, g w, ditto 2½d, cast iron for agricultural and domestic use, g w, ditto 2½d, forged iron and in parts for domestic use, not denominated, g w, ditto 6d; guns, single barrel, each 7/9½, double barrel 15/5½, fine 18/6½, fine double £1 17s 0½d, breech loaders £3 1s 9d, hooks and rings g w, per lb 7½d, nails (3in.) and tacks, g w, ditto 3d, pumps for casks, per doz £1 17s 0½d, steel g w, per lb 2½d, tools and implements, g w, ditto 2½d, ditto fine, g w, ditto 7½d, scales 4in. per doz 18/6½d, 8in. £1 7s 9½d, 12in. £3 14s 0½d, 18in £5 11s 1d, with marble slabs, each 18/6½, safes and strong boxes, 25in. high, each £3 17s 2½d, safes, large (according to size), wire, g w, per lb 6d, weighing machines to weigh 150 lbs, each 18/6½, to weigh 250 lbs £1 10s 10½d, to weigh 500 lbs £3 1s 9½d, screws, g w, per lb 6d; **S.** Iron, cast, in pigs, and old cast iron 9½d, tubes, rough bars ("torchos") 1/5, iron and steel, wrought, old broken 1/6, rails 1 10, bars and hoops of all kinds 3/6, plates of not less than 6 millimetres in thickness and rivets 2 8½, plates of less than 6 millimetres in thickness, also axle-trees, tires, plates, and springs for carriages 3/6, wire 2 8, wire gauze, not further manufactured 6/1, tubes 3/4, nails and screws, with or without brass heads 6/0½. (NOTE.—Large

Iron and Steel—continued.

pieces of iron and steel used for building purposes, and consisting of bars and plates riveted together, pay duty as bars, with an addition of 30%. Iron wares, of cast-iron, common $2/5\frac{1}{2}$, fine, polished, or japanned, or with ornaments of common metals $4/9\frac{1}{2}$, of wrought iron, not otherwise specified, including japanned articles and wares, in combination with other metals $8/1$, tin plates $5/7\frac{1}{2}$, ditto manufactures thereof not otherwise specified $£1$ os $8d$, iron and steel wares, needles, steel pens, watch works, and other similar articles of iron or steel $£6$ is $11d$, table knives, carving knives, clasp knives, and pen knives $£2$ os $8d$, scissors $£4$ 11s $5d$, side-arms and parts thereof $£4$ 3s $4d$, articles of steel not otherwise specified $8/0\frac{1}{2}$. (NOTE.—Instruments, mathematical, physical, &c. are charged according to the material which predominates in weight.) Machines and machinery, agricultural machines $4\frac{1}{2}d$, locomotive engines and other motive machinery $9\frac{1}{2}d$, machinery for industrial purposes, and detached parts thereof $3/3$, weighing machines $9/4$, machinery of copper $9/9$, arms and ammunition, side-arms $£4$ 3s $4d$, fire arms, also barrels and other parts thereof $£9$ 7s $0d$, gunpowder for mining purposes $19/1$, cartridges, ball $9/5$, ditto other kinds $18/8$, percussion caps $£2$ 10s $0d$. (NOTE.—Arms and munitions of war, under which are included pistols, revolvers, guns, and carbines which have a calibre of over 7 millimetres, as also their ammunition, are prohibited to be imported except by special permission of the Government.)

8n.

8n. Iron, cast, pig, ballast, and lump iron free, beams, columns, lamp posts, railings, grates, hearth plates, and weights $6\frac{1}{2}d$, firegrates, stoves, and chimneys, also cast pots, mortars, and mangers not enamelled, glazed, or tinned $1/1\frac{1}{2}$, tables, sofas, chairs, foot scrapers, spittoons, parts of doors, candelabra, press-irons, and flat irons, and all not specified cast-iron wares enamelled, glazed or tinned $4/6\frac{1}{2}$, fire-irons, coffee and sausage mills, copying presses, umbrella stands, flower stands and other similar household articles $8/6$, fine, as flower vases, busts, fruit dishes, lamps, candlesticks, medallions, paper-holders, watch stands, trays, &c. $14/1$, buttons $8/6$, iron wrought and steel anchors, chains and cables, with links of 2-9th of an inch and more in diameter, grappling irons, armlets, rudder irons and ships' keels, iron and steel bars, sheets, hoops, bolts, railings, round or square, angle and T-iron and wire, plates coated or not with tin, zinc or lead, galvanised, perforated or not, but not further manufactured, also plate of 1-9th inch and above in thickness partly manufactured, rails for railways, railway chairs, spikes, bolts, &c., also springs free, iron safes and bedsteads $10\frac{1}{2} a v$; small chains of less than 2-9th inch in diameter $5/8$, screws and nails of all kinds exceeding 4-9th inch in diameter free, shoe nails $3/11\frac{1}{2}$, nails of $1\frac{1}{2}$ of an inch long and above $1/8\frac{1}{2}$, nails of less than $1\frac{1}{2}$ of an inch long, also tacks and French nails $8/6$, nails, brass-headed $19/9$, other wrought iron or steel wares not particularly specified, gilt or silvered $£1$ 19s $6d$, polished, lacquered or nicked $19/9$, other kinds $8/6$, wire gauze $8/6$, manufactures of tin-plate not otherwise specified as materials, wrought, of which composed, steel unmanufactured free, cutlery, razors with or without cases $£1$ 13s $4d$, penknives $£3$ 6s $7d$, clasp knives, sailors or common working knives $7/11$, table knives and other sorts not particularly specified, with silver, plated or ivory handles $£3$ 6s $7d$, with handles of other materials $13/7$, scissors other than garden, tailors' or clothworkers' scissors, unpolished $13/7$ polished $£1$ 13s $4d$, instruments, surgical, mathematical, &c., tool garden and tailors' shears, machinery, steam engines and parts of railway carriages, including springs free, thimbles $19/9$, hooks and eyes $16/11$, pins and needles $£1$ 2s $7d$, knitting needles $14/1$, fish-hooks free, arms and ammunition fire-arms of all kinds $£1$ 8s $3d$, shot $3/11\frac{1}{2}$, gunpowder and cartridges $6/9$, percussion caps $£3$ 7s $0d$;

8z.

8z. Iron and steel, iron or steel in pigs or blooms, old, broken and scrap iron, &c. $9\frac{1}{2}d$ per ton, iron, wrought, sheet, drawn, rails for railways, weighing less than 15 kilos per linear metre, special iron having a maximum transverse section of less than 6 centimetres, circular iron less than $7\frac{1}{2}$ centimetres thick, iron for wire not otherwise mentioned, square and plate iron, less than 36 centimetres in transverse section $8\frac{1}{2}d$, articles of wrought iron, malleable cast iron and steel, common, unprepared, turned, filed, finished, tarred, even combined with wood $2/10$, polished, enamelled $6/1$. (NOTE.—All iron plates of 25 centimetres or more in width are treated as sheet iron.) Sheet

Iron and Steel—*continued.*

iron neither pierced nor riveted $\frac{1}{16}$. Wire (including rods of a maximum diameter of 9 millimetres) coated or not with lead, tin, zinc, copper or nickel $\frac{1}{7}\frac{1}{2}$, cast iron or steel wares, very coarse and in the rough $\frac{1}{4}$, other manufactures of cast iron $\frac{3}{4}$, wrought iron or steel wares, tubes and pipes in the rough $\frac{3}{4}$, very coarse wares in the rough, as rough tools, ploughshares, axes for carriages, anvils, tubes and pipes of all sorts, riveted, soldered or galvanised, railway chairs, points, and crossings for railways, coupling irons, &c. $\frac{1}{2}\frac{1}{4}$, common rough turned, filed, planed or dressed with preservative paint, tarred or tinned, in combination with wood or not $\frac{2}{10}\frac{1}{4}$, fine, painted, polished, varnished or enamelled combined or not with other materials $\frac{8}{2}$, ditto coated with nickel $\frac{12}{2}$, lamp stands of cast iron $\frac{2}{6}$ shears for cutting hedges $\frac{3}{6}$. (NOTE.—Articles composed partly of cast and partly of wrought iron are chargeable under the foregoing categories, according as the cast or wrought iron predominates in the weight.) Girders, bridges and detached parts thereof not otherwise specified $\frac{1}{7}\frac{1}{2}$, cutlery of all kinds $\frac{16}{3}$, instruments, surgical, mathematical and astronomical $\frac{6}{6}$, agricultural implements, such as ploughs, harrows, &c. $\frac{6}{4}$ a v, engraved cylinders and plates for printing $\frac{1}{7}\frac{1}{2}$, cylinders and plates for printing not engraved $\frac{9}{4}$, machinery of all sorts (except locomotives) and finished parts thereof $\frac{1}{7}\frac{1}{2}$, detached parts of machines in the rough $\frac{9}{4}$, locomotives $\frac{1}{7}\frac{1}{2}$, arms of all sorts and finished parts thereof $\frac{4}{1}$ or $\frac{4}{4}$, detached parts of

T. All kinds $\frac{8}{4}$ a v, the importation of revolvers is prohibited; US. Iron, cast iron in pigs, iron kentledge,

Spiegeleisen and wrought or scrap iron $\frac{4}{1}$ 8s per ton. (NOTE.—Only waste or refuse iron or steel that has been in actual use and is fit only to be remanufactured is considered as scrap.)

Iron, hammered or rolled, in bars, comprising flat bars not less than 1 inch wide nor less than $\frac{1}{4}$ inch thick $\frac{3}{8}\frac{1}{2}$, ditto less than 1 inch wide or less than $\frac{1}{4}$ inch thick $\frac{5}{1}\frac{1}{2}$, ditto square bars not less than $\frac{1}{4}$ inch square $\frac{4}{8}$, ditto less than $\frac{1}{4}$ inch square $\frac{5}{1}\frac{1}{2}$, rods not less than $\frac{1}{4}$ inch in diameter $\frac{4}{8}$, ditto less than $\frac{1}{4}$ inch but not less than $\frac{7}{16}$ th inch in diameter $\frac{5}{1}\frac{1}{2}$. (NOTE.—All iron in slabs, blooms, loops or other forms, less finished than iron in bars and more advanced than pig iron (except castings) pay as bar iron, no articles in the above classes are to pay less than 35% a v. All iron in bars, blooms, billets or shapes or sizes of any kind, in the manufacture of which charcoal is used as fuel, pay a duty of $\frac{4}{4}$ 11s 8d per ton.

Iron T rails weighing not over 25 lbs to the yard $\frac{4}{2}\frac{1}{2}$, iron flat rails punched $\frac{3}{8}\frac{1}{2}$, railway bars weighing more than 25 lbs to the yard $\frac{3}{3}\frac{1}{2}$, round iron in coils or rods less than $\frac{7}{16}$ th inch in diameter and bars or shapes of rolled iron not otherwise mentioned $\frac{5}{7}\frac{1}{2}$, boiler and other plate iron, sheared or unsheared, skelp iron sheared or rolled in grooves $\frac{5}{10}$, sheet iron, common or black, thinner than $\frac{1}{2}$ inch and not thinner than No. 20 wire gauge $\frac{5}{1}\frac{1}{2}$, sheet iron, common or black, thinner than No. 20 but not thinner than No. 25 wire gauge $\frac{5}{7}\frac{1}{2}$, ditto thinner than No. 25 but not thinner than No. 29 wire gauge $\frac{7}{1}$, ditto thinner than No. 29 wire gauge 30% a v, common or black taggers iron in boxes, bundles or not 30%. (NOTE.—Sheet or plate iron (except tin plates,terne plates and taggers tin, otherwise provided for) when galvanised or coated with zinc or spelter or other metals or alloy of such metals pay $\frac{3}{6}$ per cwt in addition to the above rates.) Sheet iron polished, planished or glanced by whatever name designated $\frac{11}{8}$. (NOTE.—Cold-rolled plate, sheet or taggers iron, pickled or cleaned by acid or by any other process, but not polished, planished or glanced is charged $\frac{1}{2}$ per cwt more duty than the corresponding gauges of common or black sheet or taggers iron.) Tin plates, terne plates and taggers tin $\frac{4}{8}$, sheet iron, corrugated or crimped $\frac{6}{6}\frac{1}{2}$, hoop, band or scroll iron, 8 inches or less in width and not thinner than No. 10 wire gauge $\frac{4}{8}$, ditto thinner than No. 10 and not thinner than No. 20 wire gauge $\frac{5}{7}\frac{1}{2}$, ditto thinner than No. 20, $\frac{6}{6}\frac{1}{2}$. (NOTE.—All articles not specially enumerated, manufactured wholly or in part of sheet, plate, hoop, band or scroll iron or of which such materials are the component parts of chief value are charged $\frac{1}{2}$ per cwt more duty than that imposed on the iron from which they are made or which is the material of chief value.) Hoops for bales and cotton ties, not thinner than No. 20 wire gauge 35% a v, steel, scrap $\frac{4}{1}$ 8s per ton, ingots, blooms or slabs, billets and bars, bands, hoops, strips

Iron and Steel—continued.

and sheets of all gauges and width, plates without reference to width or thickness, shafts for steamers, cranks and other uses, wrist or crank pins, piston or connecting rods, pressed, sheared or stamped, shapes or blanks of sheet or plate steel or of steel and iron, punched or not, hammer moulds or swayed steel, gun moulds not in bars, alloys used as substitutes for steel tools and all shapes of dry sand, loam or iron-moulded steel castings not otherwise mentioned, valued at 4 cents per lb or less 45% a v, valued at above 4 cents but not above 7 cents per lb 9/4 per cwt, valued at above 7 cents but not above 10 cents per lb 12/10, valued at above 10 cents per lb 15/2, steel in sheets smoothed or polished 11/8, ditto coated with lead or tin 4/8, ditto corrugated or crimped 6/6½. (NOTE.—All iron or steel bars, rods, strips or steel sheets of whatever shape, and all iron or steel bars of irregular shape or section, cold-rolled, cold-hammered or polished in any way in addition to the ordinary process, are charged 1/2 per cwt in addition to the above rates, on steel circular saw plates 4/8 per cwt additional is levied.) Hoops for bales and cotton ties not thinner than No. 20 wire gauge 35% a v, steel T rails weighing not more than 25 lbs to the yard 4/2½, steel flat rails punched 3/8½, steel railway bars and railway bars made in part of steel, weighing more than 25 lbs to the yard 3/6½, ingots, cogged ingots, blooms or blanks of iron and steel for the manufacture of wheels, tires, &c., for railways 9/4, steel not specially mentioned 45% a v, iron or steel wire smaller than No. 5 and not smaller than No. 10 wire gauge 7/1, smaller than No. 10 and not smaller than No. 16 wire gauge 9/4, smaller than No. 16 and not smaller than No. 26 wire gauge 11/8, smaller than No. 26 14/1. (NOTE.—On iron or steel wire covered with silk, cotton or other material and on all crinoline, corset or hat wire 18/8 per cwt additional is levied. No article made from iron or steel wire or of which iron or steel wire is the component part of chief value will pay a less rate of duty than the wire of which it is composed. Iron or steel wire-cloths and nettings made in meshes of any form, in addition to the duty payable on the wire 9/4, galvanised iron or steel wire, except fence wire, in addition to the duty payable on the wire of which made 2/4, iron wire rope and wire strand, in addition to the duty payable on the wire of which composed 4/8, steel ditto, in addition to the duty payable on the wire of which made 9/4, iron or steel screw, nail, rivet and fence wire rods (round), in coils or loops, not lighter than No. 5 wire gauge, valued at 3½ cents or less per lb 2/9½, iron or steel wire flats, with longitudinal ribs, for the manufacture of fencing 2/9½, iron or steel wares, iron or steel beams, girders, joists, angles, channels, car-truck channels, T columns and posts or parts or sections thereof, deck and bulb beams and building shapes and all structural shapes of iron or steel 5/10, iron or steel railway fish plates, chairs or splice bars 5/10, malleable iron castings not otherwise provided for 9/4, cast-iron pipes of every description 4/8, vessels of cast iron, smoothing irons, tailors' and hatters' irons, stoves and stove-plates and iron castings not specially mentioned 5/10, mill irons and mill cranks of wrought iron and wrought iron for ships, steam-engines and locomotives or parts thereof weighing 25 lbs or more, each 9/4, anvils, anchors and parts thereof 9/4, boiler tubes, flues or stays of wrought iron or steel 14/1, other wrought iron or steel tubes or pipes 10/6, cables and chains of all kinds of iron or steel not less than 3/4ths of an in. in diameter 8/2, less than 3/4ths but not less than 3/8ths of an in. in diameter 9/4, less than 3/8ths of an in. in diameter 11/8, blacksmiths' hammers or sledges of iron or steel, track tools, wedges and crowbars 11/8, iron or steel axles or parts thereof, axle bars or blanks or forgings for axles, in whatever stage of manufacture 11/8, steel wheels and steel-tired wheels for railways, and iron or steel railway tyres or parts thereof, whether finished or not 11/8, iron or steel rivets, bolts with or without threads or nuts and bolt blanks 11/8, butts and finished hinges or hinge blanks 11/8, hollow ware, glazed or tinned 14/1, wrought iron or steel spikes, nuts, washers and horse-shoes 9/4, cut nails and spikes of iron or steel 5/10, cut tacks, brads or sprigs not exceeding 16 oz to the thousand 14d per thousand, exceeding 16 oz to the thousand 14/ per cwt, horse-shoe nails, hob nails and wire nails and all wrought iron and steel nails not specially mentioned 18/8, nails with metal heads washed with silver 45% a v, ditto with gilt heads, i.e., washed with gold 35%, screws 2 in. and above in length 41 8s, ditto of above 1 in. but

Iron and Steel—continued.

less than 2 in. in length £1 17s 4d, ditto over an $\frac{1}{2}$ in. and less than 1 in. in length £2 6s 8d, ditto of an $\frac{1}{4}$ in. or less in length £2 16s, agricultural implements of iron or steel, as ploughs, scythes, spades, shovels or sickles 45% a v, tools and implements of iron or steel, as adzes, augers, awls, chisels, planes, &c. 45%, saws, cross-cut saws 4d per linear foot, mill, pit and draw saws not over 9 in. in width 5d, ditto over 9 in. in width 7½d, ditto circular saws 30% a v, hand, back and all other saws not otherwise mentioned 40%, files, file blanks, rasps and floats of and under 4 in. in length 1/5½ per doz, over 4 in. and under 9 in. in length 3/1½, over 9 in. and under 14 in. in length 6/3, 14 in. in length or above 10/5 per doz, cutlery, razors 50% a v, table-knives and forks 35%, pen-knives, jack-knives and pocket-knives of all kinds 50%, scissors and cloth shears 35%, cutlery not specially mentioned, including butchers' knives, carvers, daggers, &c. 35%, buttons of iron or steel 25%, needles for knitting or sewing 25%, ditto, for knitting or sewing machines 35%, ditto of other kinds 25%, pens, metallic 6d per gross, penholder tips and penholders or parts thereof 30%, engraved steel plates for printing 25%, forged iron or steel of whatever shape or stage of manufacture not otherwise mentioned 11/8 per cwt, manufactures of steel or iron not otherwise provided for 45% a v, sewing machines 45%, arms and ammunition, foils, swords, sword blades, cutlasses and other side-arms, except bayonets 35%, bayonets 45%, cannon 45%, breach-loading shot guns for sporting purposes 35%, pistols of all kinds 35%, muskets, rifles and other fire-arms not specially mentioned 25%, forged shot-gun barrels, rough bored 10%, gunpowder valued at 20 cents or less per lb £1 8s per cwt, ditto valued at over 20 cents per lb £2 6s 8d, percussion caps 40% a v, shot of cast iron 5/10 per cwt, shot of lead 14/1, "metal laces" (laces composed of metal and other materials of which metal is a component part of chief value) 25% a v; **USC.** Iron, steel, and manufactures, from ½d to 2½d per kilog, other from 5d to 4/2, powder, coarse and ordinary powder for mines, in barrels or otherwise packed, gross weight exceeding 2 kilogs, 5d, fine-grained powder, in tins, &c. 2/6, as fireworks 2/11; **Ur.** Ingots, bars, or per kilo, bars galvanized, sheets, also steel bars or sheets, 0/15 per kilo, wire, wire galvanized 8 cs, articles of iron and steel not otherwise enumerated, per 100 kilos, kilo, doz, per doz pairs, each, gross, centimetre, set, 30½ cs, agricultural implements, per doz, each, kilo, 8 cs; **Ven.** 1st class, machinery for making and distributing gas, for sugar mills and accessories, agriculture, mining, weaving, saw mills, foundries, and arts and trades not specified, printing presses, type and accessories, fish hooks, fire engines, agricultural implements, bridges with accessories for public use or agricultural enterprise, ploughs, harrows, hoes, axes, shovels, pickaxes, machetas, billhooks, pruning knives, and other farm tools, wire for fencing, or not manufactured or galvanized, 2nd class, iron, unmanufactured, round, square, bar, plate, sheet and other forms, boat and launch anchors, hoops, pipes, pumps. 3rd class, iron articles, for domestic use, anchors for ships, adzes, anvils, balusters, balconies, boilers, busts, cannon, wire cloth, columns, flower-pots, forges, furniture, frying pans, hatchets, jacks, kitchen ranges, kettles, mortars, nails, ore, pots, post, rivets, scales, chains for vessels, iron edifices (in pieces), roofing, steelyards, stewpans, statues, stools, sieves, tacks, urns, knitting needles, 4th class, iron (manufactured, not specified), awls, augers, bridle bits, bells, bolts, curry combs, compasses, chisels, helmet straps, drills, files, girandoles, hinges, hammers, locks, lanterns, lamps, levels, meat covers, pincers, padlocks, spoons, instruments for arts and trades, ordinary knives for fishermen, shoemakers, saddlers, gardeners, tobacco-consists, hunters, &c., saws, trays, trowels, tinware, sword blades. 5th class, frames for glasses, filings, images, inkstands, jack knives, pocket knives and forks, paper knives, paper weights, razors, scissors, instruments (surgical, anatomical, dental, mathematical, and other scientific), musical instruments, and parts not specified. 6th class, iron articles, gilt or plated, buckles, gun nipples, hairpins, needles, thimbles. 7th class, carbines, muskets, pistols, swords, sabres, sword blades, gun locks, gridirons, window grating, fine hunting knives, poinards. 3rd class, steel, unmanufactured; 4th class, steel, manufactured (not specified); 5th class, steel, for crinolines, bustles, &c., 2nd class, iron wire, galvanized (manufactured); 3rd class,

Iron and Steel—continued.

ungalvanized; 4th class, steel wire, manufactured (not specified), 2nd class, machinery (not specified), weighing more than 1000 kilogs; 3rd class, machinery (not specified), weighing less than 1000 kilogs; 4th class, machinery for making effervescing waters.

Iron Sleepers.—See Iron and Steel.**Iron Wares.**—See Iron and Steel.**Ivory.**—J. Elephants' teeth 15 boos per 100 catties.**Jewellery.**—See Gold and Silver Wares.**Jute.**—See Linen.**Kitchen Utensils.**—See Brass and Copper, also Iron and Steel.**Knives.**—See Iron and Steel.**Lace.**—See Woven Manufactures.**Lamp Stands.**—See Iron and Steel.**Latches.**—See Iron and Steel.**Lawn.**—See Woven Manufactures.

Lead and Lead Wares, per cwt.—**A.** Lead in blocks, pigs, &c., also old broken and refuse lead, hard lead and type metal 1/0¹, ditto cast as vessels, pipes, plates, bullets and shot 4/6¹, ditto rolled or drawn, &c., printing type and stereotype plates 4/6¹, lead wares, common, such as household utensils combined or not with wood or iron 10/2, lead wares, fine, combined or not with other materials 15/3, white lead, red lead 3/0¹, litharge 1/6¹; **B.** Lead unmanufactured of all kinds free, lead wares 10% a v, printing type, white lead, red lead and litharge free; **Br.** Lead per kilo, in bars, pigs, or lumps, pieces or scrap, or any other unmanufactured 70 r, in leaves for packets of snuff, &c. 350 r, in tubes for aqueducts, and in sheets rolled, in plates, or in wire 120 r, in weights for scales, for clocks, and for use in fishing 160 r, articles not otherwise mentioned—plain 800 r, silvered, entirely or in part 1,600 r, gilded, entirely or in part 2,400 r; **C.** In pipes and tubes 15% a v, in bars and plates free; **Ch.** In pigs, 100 catties 0'2'5'0, in sheets 0'5'5'0; **Cor.** Pig 5% a v, manufactures 7¹/₂ a v; **D.** Lead, pig free, ditto sheet or rolled, pans, bullets and shot 2/4¹, lead wares varnished, lacquered or painted 4/1 17s 8d, other kinds 18/10, printing type 7/1, white lead, red lead 2/4¹; **E.** Of all kinds, 2¹/₂d per kilo; **F.** Lead in pigs, bars and slabs, also old lead and filings free, alloyed with antimony in pigs 1/2¹, rolled or hammered 1/2¹, wares, pipes, &c. 1/2¹, printing type new 3/3, ditto old 1/2¹, white lead, red lead, litharge free; **G.** Lead, pure or alloyed with antimony, zinc or tin, raw or broken lead free, in sheets and printing type 1/6¹, lead wares coarse, plain or combined with wood, iron, zinc or tin not polished or lacquered, wire 3/0¹, fine, lacquered or not, plain or combined with other materials, provided they cannot be classified under the head of small ornamental wares 12/2, white lead, red lead and litharge free; **Gr.** Lead in blocks, plates and sheets 3/2¹, lead wares, shot 6/5, printing type free, other articles 4/8 white lead, red lead, litharge free; **Hi.** Manufactures 10%; **Hay.** Sheet 9/4, pig 4/8, shot 18/8; **H.** All kinds printing type, white and red lead free; **I.** Lead and its alloys with antimony, pig and old 2¹/₂d, hammered in sheets, also pipes 1/1¹, lead wares, including shots 1/11¹, printing type 7/11, white lead 2/0¹, red lead and litharge 9¹/₂d; **J.** Paint and paint oils, red, white, and yellow lead 1 boos 50 cents per 100 catties, pig lead 80 cents, sheet lead 1 boos, spelter and zinc 60 cents; **M.** Per kilo, lead in the rough and in pig, shot or sheets, gw 0 05, manufactures of pewter or white metal gw 0'40, plated ware or German silver in sheets gw 0'20; **Ni.** Lead, raw, rolled, &c. free, manufactured, not separately mentioned, 10% a v; **Nic.** Raw and manufactured 1¹/₂d per lb; **N.** Lead in rolls, pigs or sheets, pipes free, lead wares, printing type free, lead foil 19/9, other kinds and shot 4/6¹, white lead 3/0¹, red lead and litharge free; **Per.** Manufactures 45%; **P.** Lead, manufactured, 53 r per kilo; **R.** Pig, filings and old broken articles free, pipes, sheets, coarse castings, ball and shot and generally all articles in lead, simply cast not further worked, neither painted, varnished nor polished 3/3, white lead, red lead, litharge free, all other articles of lead of all qualities, painted, polished, varnished or not, but neither gilt nor silvered nor combined with materials liable to a duty higher than that imposed on these articles 4/1 4s 5d; **Rus.** Lead in pigs and scrap 11¹/₂d, rolls, sheets and pipes of all kinds 1/11¹, printing type 3/3, manufactures of lead not otherwise enumerated 8/8, white lead 5/5, red lead 2/11¹, litharge 11¹/₂d; **Sal.** In bars 2¹/₂d, in shot 3¹/₂d per lb; **S.** Lead, pig,

Lead and Lead Wares—continued.

- sheet, tubes, bullets and shot 7½d, lead wares plain or lacquered 6/9, ditto gilt, silvered or lacquered 18/3, white lead 1/11½, red lead and litharge 10d; **Sn.** Lead raw, in pigs or rolls free, lead wares, not painted or lacquered 3/11½, painted or lacquered 19/9, white lead 2/10½, red lead and litharge free; **Sz.** Lead, pig, plates and old lead 1½d, ditto hammered or rolled in sheets, tubes and pipes, also ball and shot, hard lead and type metal 7½d, lead wares not painted nor varnished 2/10, ditto polished, painted or varnished 6/6, printing type, old 7½d, ditto new 2/10½, white lead 1/2½, red lead 4½d, litharge 1½d; **T.** All kinds 8% a v; **US.** Lead old and scrap, pigs and bars 9/4, ditto sheets, pipes and shot 14/, printing type 25% a v, type metal 20%, lead wares not otherwise specified 45%; **USC.** white lead, red lead, litharge 14/; **USC.** Per kilogram, in ingots, or in sheets, tubes, or other objects, their weight exceeding 5 kilogrammes, shot, type 2½d, toys and paper, or in thin sheets 2/11, caps for bottles 5d, other 1/8; **Ur.** Printing type 8% a v; **Ven.** Ven. 3rd class, bars, &c., unmanufactured, shot, ball, 4th class, manufactured (not specified), solder, 5th class, toys, 2nd class, paints, black lead, red lead, chromate of lead.

Leather and Leather Wares.—See Hides and Skins.

Linen, Hemp and Jute, Yarns and Thread.—See Yarns and Thread (Linen, Hemp and Jute).

Linen, Hemp and Jute (Woven Manufactures).—See Woven Manufactures (Linen, Hemp and Jute).

Liqueurs.—See Spirits.

Litharge.—See Lead and Lead Wares.

Lithographs.—See Paper, &c.

Lobsters.—See Fish.

Locksmiths' Wares.—See Iron and Steel.

Locomotives.—See Iron and Steel.

"Lombard" Chocolate.—See Cocoa.

Machines and Machinery.—See Brass and Copper; also Iron and Steel.

Malt Extract.—**Sz.** 6/8 per cwt.

Maps.—See Paper, &c.

Marine Engines.—See Iron and Steel.

Matches, Lucifer and Wax, per cwt.—**A.** Wooden free, wax and stearine 3/0½; **Ar.** Matches of wax 50% a v, wooden 40%; **B.** 10% a v; **C.** Of all kinds 35% a v; **Cor.** 5%; **D.** 16/6; **F.** Imported for the Régie, of wood 4/10½, other 8/2, imported on private account, prohibited; **G.** 5/1; **Gr.** Prohibited; **H.** 5% a v; **I.** Wooden 45/076d, other kinds 6/11½d; **Nic.** 2d per lb; **N.** Free; **PR.** All kinds 46 centavos per kilo; **P.** Matches of all descriptions 80 r per kilo; **R.** 42 os 8d; **Rus.** 3/2 per 200 boxes of 75 matches, or less, and 3/4 for 50 boxes of 75 to 300 matches; **S.** Wooden 7/7½, other kinds 13/9; **Sn.** 2/10; **Sz.** 2/0½; **T.** 8% a v; **US.** (not including excise duty) 35% a v; **USC.** Wooden 10d, wax 1/8 per kilo; **Ur.** g w 40 cs per kilo.

Mathematical Instruments.—See Iron and Steel.

Mattresses.—See Woven Manufactures—Woollen and Worsted.

Metal Laces.—See Iron and Steel.

Millstones.—See Grindstones.

Mirrors.—See Glass and Glasswares.

Molasses.—See Sugar.

Moleskins.—See Woven Manufactures.

Morocco Leather.—See Hides and Skins.

Muslin.—See Woven Manufactures.

Nails.—See Brass and Copper; also Iron and Steel.

Needles.—See Iron and Steel.

Needle Wire.—See Iron and Steel.

Nets.—See Woven Manufactures.

Oil Cake.—**A.** Free; **B.** Free; **D.** Free; **F.** Free; **G.** Free; **Gr.** Not specified; **H.** Free; **I.** Free; **N.** Free; **P.** Not specified; **R.** 1/1 r per cwt; **Rus.** Free; **S.** Not specified; **Sn.** Free; **Sz.** Free; **T.** 8% a v; **US.** Free.

Oilcloth.—See Woven Manufactures (Linen, Hemp and Jute).

Oiled Silk.—See Woven Manufactures (Silk).

Oils, Rock.—See Petroleum.

Oils, Seed.—See Seed Oil.

Optical Instruments.—See Iron and steel.

Packing Cloth.—See Woven Manufactures.

Painted Straw.—See Straw Plaiting.

Paints.—See Barytes, also Lead, &c.

- Paper, &c., Stationery and Books, per cwt.—A.** Paper (a) grey blotting paper, rough packing paper (sized or unsized), common pasteboard, carton pierre, press boards, tarred or asphalted pasteboard, slate paper and tablets thereof not combined with other materials, emery and sand paper free, (b) packing paper, smooth, sized, dyed, varnished or tarred, also common unsized paper (coarse grey, half white and dyed) and all unsized printing paper, mouldings of carton pierre or of similar materials not painted or lacquered 2/0½, (c) paper not otherwise specified, also lithographed, printed or lined for tickets, invoices, &c., drawing paper, artists' cardboard, &c. 3/0½, (d) gold and silver paper and paper with real or false gold and silver or bronzed patterns, embossed or perforated paper, strips of such paper, paper-hangings 15/3, (e) paper wares, wares of paper and cardboard also of papier mâché or wood pulp, mouldings of carton pierre or similar materials not included under (b), wares of the above-named stuffs in combination with other materials, so far as not included under indiarubber, leather or small wares, paper and pasteboard lined with cotton or linen, and envelopes thereof, hat linings of paper covered with woven tissues 15/3, (f) fine paper wares, fine cardboard and card wares, chromo-lithographed tickets and vignettes, games, paper linen, book covers combined with linen or cotton and in combination with other materials not comprised under leather and small, wares £1 10s 6d, (g) playing cards £3 0s 11d. (NOTE.—Playing cards are subject to stamp duty in addition.) Books, printed, maps music, &c., prints, engravings, photographs, &c. free, pens (quill) free, pens, other kinds £1 10s 6d, sealing-wax 10/2, pencils, lead and crayons in cases or not £1 4s 5d, ink and ink powder 10/2, rags and wood pulp for paper manufacture free; **Ar.** Playing cards 50% a v, writing and printing paper 10%, printed books, printing implements (excluding types) 5%; **B.** Paper other than paper-hangings 1/7½, paper-hangings 3/3, papier mâché and wares thereof, playing cards 10% a v, lithographs, photographs, engravings, unframed, &c. free, ink for writing or drawing 10%, for printing free, pencils, steel pens, sealing-wax 10%, books, rags free; **Br.** Pencils (common) for carpenters' use '400 and 30% per kilo, others '1'000 and 30%, ditto without wood '2'500 and 30%, slate pencils '200 and 30%, seal wax '400 and 30%, writing ink, fluid '180, ditto in powder '500, printing ink '100, paper, chemical and medicinal, '1'200 and 30% per kilo, albums, common, '1'500 and 30%, fine '3'000 and 30%, in combination with gold and silver 30% a v, cartoons in sheets '100, cut '300 per kilo, playing cards in packs '800, prints, photographs '100 and 10% per kilo, copy books '800 and 30%, printed books, bound or not, maps '100 and 10%, envelopes, visit cards, labels, one colour '900 and 30%, more colours '1'500 and 30%, writing and drawing paper, white or coloured '140 and 30%, ditto printing '020 and 10%, blotting '100, ditto packing printed '150, not '050 and 30%, copying paper '200 and 30%, paper-hangings painted or printed '800 and 30%, ditto gilt or silvered '1'200 and 30%, cardboards '50 and 30%; **C.** Albums, playing cards, labels, printed or not, books bound, ditto unbound free, account books, cigarette papers, packing paper 35% a v, lead pencils, maps free, slate pencils free, printing paper free, printing ink free, rags free; **Ch.** Foreign stationery free, paper 1st quality, per 100 catties 0'7'0'0, 2nd quality 0'4'0'0, black tinsel paper 5% a v, oiled paper 0'4'5'0 per 100 catties; **Cor.** Paper, common, 5% a v, fancy, wall, &c., and manufacture 10% a v, books, maps, etc., free, engravings 10% a v, cards (playing) 30% a v, ink for seals 10% a v, other 8% a v, pencils, all kinds 8% a v; **D.** Paper, common waste and packing paper, glass, sand, emery, asphalt and tarred paper 1/2, carton pierre and common ornaments and articles thereof 1/2, other kinds of paper, also if coloured in the mass, varnished, oiled and chalk paper, &c. 5/11, coloured, gilt, silvered or embossed paper or with gilt edges, engravings, lithographs, photographs, cards, tickets, labels, &c., ruled paper, paper patterns and pattern sheets, envelopes and other paper with linings, &c., on cotton or linen 18/10, other articles of paper and of papier mâché, including paper with lining of silk or wool £1 17s 8d, playing cards ½d per pack, excise duty in addition 2½d, manuscripts, state papers, bank notes, &c., free, sealing-wax 18/10, per cwt, pencils, black-lead, &c., 11/9, steel pens £1 17s 8d, ink, writing and ink powder 7/1, gross weight printing ink 4/8½, books, printed of all kinds, bound or unbound, rags free; **E.** Maps and engravings 1/0½d per kilo, envelopes 5d per kilo, copy books

Paper, &c.—*continued.*

- F.** 1d, paper and manufactures 2½d per kilo, sand paper 5d per kilo; **F.** Paper of all kinds, except fancy paper 3/3*, fancy paper, coloured, marbled, embossed, gilt or silvered 6/1*, cardboard, in sheets, of all kinds 3/3, ditto ground, called papier mâché 3/3, ditto cut and arranged in boxes covered with white or coloured paper 14/8, ditto albums and cardboard goods, decorated with painting, woven materials, wood, plaited straw, and common metals £1 8s 5d, engravings, lithographs and designs of all kinds on paper free, maps, printed music, labels, tickets engraved or coloured free, playing cards prohibited, slate pencils, plain, without case 4½d, ditto cased in white wood, varnished or not and carpenters' pencils 14/3, pencils, other kinds, fine, cased in cedar and other dyed woods and coloured pencils £2 16s 11d, ditto for pocket books, &c., with or without bone tops £4 17s 7d, steel pens £2 0s 8d, ink for writing or printing 8/2, sealing-wax 12/2, books, rags unprepared or in paste free.* (NOTE.—In addition to the above duties on paper and cardboard, the following rates of excise duty are levied upon the under-mentioned descriptions of paper, (1) on cigarette, tissue, parchment and other similar papers of all kinds and sizes 6/4 per cwt, (2) on letter paper 4/7½, (3) on paper and cardboard made of or mixed with white or bleached paste, including writing paper other than letter paper and printing paper 4/2½, (4) on paper and cardboard of natural colour with or without addition of colouring matter 2/1½.) **G.** Paper and pasteboard, unbleached or bleached, half-manufactured paste of rags free, unbleached or bleached, half-manufactured paste of wood, straw, esparto and other fibres for paper-making, grey blotting and yellow rough st 1w paper, pasteboard, except glazed and card leather, slate paper and ablets thereof not combined with other materials, emery and polishing paper 6d, unsized packing paper not otherwise specified 2/0½, sized packing paper, glazed pasteboard and card leather, press boards 3/0½, printing, writing and tissue paper of all kinds, blotting paper other than coarse grey, lithographed, printed and ruled paper for accounts, tickets, &c., gold and silver paper, paper with gold or silver patterns, perforated paper, artists' cardboard 5/1, moulded work of carton pierre combined or not with wood or iron, but not painted or varnished 2/0½, moulded work of carton pierre, painted or varnished 6/1, wares of paper, pasteboard or papier mâché 6/1, the above wares in combination with other materials, provided they cannot be classified under the head of small ornamental wares 12/2, paper-hangings 12/2, small ornamental wares gilt or silvered £5 1s 7d, pencils, all kinds 10/2, steel pens £1 10s 6d, ink and ink powder, sealing-wax 1/6½, playing cards (besides excise duty) £1 10s 6d (gross weight), books, manuscripts, &c., bound or not, engravings, lithographs, photographs, rags, &c. free; **Gr.** Paper, paste for the manufacture of paper free, glass and emery paper and tarred paper free, blotting paper, common 2/6½, printing paper of all kinds 5/1½, writing paper, white, grey or blue, glazed or not 9/7½, paper ruled for account books, paper-hangings 19/2½, red blotting paper and tissue paper (except cigarette paper and paper for copying letters, &c.) 5/1½, cigarette paper, paper for press copying letters, paper with watermark for the manufacture of stamps prohibited, fancy papers, coloured, gilt or silvered £3 4s, cardboard of all kinds 2/6½, papier mâché and articles thereof £4 16s, books, printed, bound or not, and all printed paper free, blank books 19/2½, lithographs, engravings, &c. free, playing cards £16, ink of all kinds and of all colours 16/, pencils of all kinds except slate £1 12s, ditto slate free, sealing-wax £1 18s 5d; **HI.** Books, maps, engravings, and paper manufactures, free; **Hay.** Books, bound, per vol, folio 10d, quarto 7½d, octavo 4d, duodecimo 2½d, sextadecimo 1½d, octodecimo 1½d, unbound half-price according to folio, classical, grammars, dictionaries, &c., free, memo. for pockets 1/3, ditto fine 1/8 per doz, maps, mounted, over 48in. 1/0½ each, under 48in. 6d each, engravings, small, ordinary, without frames, other than those prohibited by law 6d per doz, engravings of saints and others, coloured and uncoloured 7d to 5/- each, ditto over 31in. to 36in. by 35in. to 40in. 20½ a v, paper, sand, per quire 4d, drawing, maps, &c., per 100 sheets 4½. mini-sterial, gilt edge, per ream 4½, ditto plain edge, ditto 3/1½, ditto fine, over 15in, ditto 2/6, ditto ordinary, under 15in, ditto 2/11, scholar, common, ditto 7½½, letter ditto 2/-, ditto gilt edge, ditto 2/6, wrapper, cartridge, etc. per quire, ruled for music 6d, wall, satin,

Paper, &c.—*continued.*

- velvet and gilt, per roll $1/0\frac{1}{2}$, ditto satin, velvet, ditto 9d, ditto satin ordinary, ditto 3d, plain, ditto $1\frac{1}{2}$ d, waterproof, ditto $1/8$, boxes, per doz $2/1$, ditto office, ditto $4/2$, ditto hat, ditto $3/1\frac{1}{2}$, ditto model, ditto $2/1$, pasteboard, per sheet 8d; H. Paper of all kinds, music paper, paper-hangings, cartridge paper, registers, cardboard, &c., playing cards, papier maché and wares thereof, sealing-wax, pencils steel pens $5/4$ a v, ink, books (printed), maps, charts, engravings, rags free; I. Rags of all kinds, free, pulp of wood, straw, etc., $4\frac{1}{2}$ d, (the pulp must be perforated, so that it cannot in any case be used as cardboard.) Paper, white or tinted in the pulp, laid $5/0\frac{1}{2}$, envelopes $10/2$, coloured, gilt or painted paper, and wall papers (including paper bleached for lithography and photography) $18/3\frac{1}{2}$, blotting paper (by this term is meant that paper known in the trade as "blotting paper," and not all kinds of paper without glue) $6/1\frac{1}{2}$, coarse packing paper and straw paper tinted in the pulp not cylindered $1/2\frac{1}{2}$, ditto cylindered on one side $2/1\frac{1}{2}$ playing cards, and "Tarochi" $32/-$ per 100 packs, prints, lithographs and labels $40/7\frac{1}{2}$, cardboard, common (only that made of sheets united by pressure without paste) $0\frac{1}{2}$ d, cardboard, fine, as the respective qualities of paper, articles of paper and cardboard $6/$, books and music printed in Italian, as the paper of which composed, in other languages, free, bound in any manner $8/1\frac{1}{2}$, books, not printed, (registers), loose or in boards $10/2$, other $16/3$, manuscripts free, small note-books $10/$, Pencils, crayons and lead pencils with varnished coverings, also other kinds $20/3\frac{1}{2}$, ink of all kinds $6/1\frac{1}{2}$, sealing wax $12/3\frac{1}{2}$, waxed paper for wrappers $3/$; M. Books bound in velvet, mother-of-pearl, ivory, tortoiseshell, wood, composite or metal, other than gold or silver g w $1/20$, lettering, coats of arms, vignettes, type and other accessories for printing and lithography free, books and printed music bound in paper free; NI. NI. Books, maps and charts, engravings and prints, and music in sheets, sewed or bound, free, paper of all descriptions, paper hangings, music, maps, cardboard paper, account books and registers, plain or ruled, $10/4$ a v; Nic. Per lb, books maps, engravings, paper for periodicals, if not under size 20 by 20, and lined for music free, blank books, all kinds 2d, glass and emery paper 6d, wall, trimmings, and dolls $10\frac{1}{2}$ d, playing cards $1/3\frac{1}{2}$, fans, and materials used in artificial flower making $2/7$, masks, all kinds $3/5\frac{1}{2}$, ink, writing $4\frac{1}{2}$ d, pens, holders, and pencil cases 6d, sealing wax and wafers $10\frac{1}{2}$ d; N. Paper, writing, drawing, and unruled note paper, all paper fit for writing or drawing, white or coloured, varnished or oil paper, parchment paper and slips of paper for telegrams $7/4$, printing paper, all kinds, blotting paper, filtering paper, packing paper, roofing or sheathing paper, &c., polishing, emery and sand papers, pasteboard and cartridge paper and ornaments made of carton pierre, free, paper hangings $7/4$, crochet and embroidery patterns, pattern books, blank forms, labels, ruled paper, visiting cards, tickets and envelopes, shop paper, bags, frames with or without glass $7/4$, paper with gauze or other applications, also lacquered pasteboard $3/4$, playing cards (excluding stamp duty) $3\frac{1}{2}$ d per pack, written documents, bank notes, bills, share certificates, &c. free, paper bound or stitched $15/3$, other articles of paper or pasteboard (except books), papier maché, also albums $\mathcal{L}1\ 13s\ 11d$, ink, writing, and ink powder $5/7\frac{1}{2}$, sealing-wax $\mathcal{L}1\ 6s$, pencils $19/9$, metallic pens, including weight of cards or boxes $\mathcal{L}1\ 13s\ 11d$, books, periodicals, newspapers, &c., not otherwise enumerated, illustrated or not, bound or unbound, also engravings and lithographs free, rags free; Per. 45% a v, for newspapers 10% , manufactures of, not specified, books, maps, engravings, etc. 10% ; PR. Continuous printing and writing per 100 kilos 4 pesos 35 cts, ditto writing, lithographing, and engraving, hand-made, ruled, and vellum lace, ditto 8 pesos 70 cts, books and other prints, bound or unbound, printed music ditto, 6 p, 50 c, engravings, designs, photographs, playing cards per kilo 1 p 74 c, stamped with gold, silver or crystal per 100 kilos 34 p 80 c, ditto other, ditto 8 p 70 c, brown, ordinary packing, and sand paper ditto 2 p 50 c, other 20 p 30 c, cardboard in sheets and boxes, lined with ordinary paper and articles of cardboard, paste or cardboard store, unfinished, ditto 3 p 51 cts, ditto finished, and cardboard boxes ornamented or lined with fine paper, or other materials per kilo 46 c; P. Paper, writing, of all qualities and colours $\mathcal{L}1\ 4s\ 11d$, painted paper $12/6$, pasteboard and cardboard

Paper, &c.—*continued.*

- 1/10³, other kinds of paper 3/6¹, paper paste for the manufacture of paper, free, playing cards £1 4s 11d, cardboard wares £2 7s 1d, prints, engravings and lithographs, also music, free, maps and atlases free (tax of 2% a v), ink, writing 12/6, printing and lithographic 14/11 (gross weight), sealing-wax, pencils, blacklead, &c. £2 7s 1d, books in a foreign language or in Portuguese when the author resides abroad, unbound or in paper covers free (tax of 2% a v), in Portuguese, if the author resides in Portugal, reprints of Portuguese works £1 4s 11d, blank books, stitched or bound £1 17s 5d, bound printed books 12/6, rags and materials for paper-making free; **R.** Paper, common, grey or other packing paper, tarred or not, pasteboard, glass paper, emery and other similar paper 3/3 paper not specially mentioned 7/9, fancy paper, gilt or silvered, ornamented in relief, note paper, with monograms or other designs, and envelopes to match, china paper, as well as all manufactures of paper, plain or combined with common materials £1 4s 5d, paper-hangings of all kinds 16/3, pasteboard 3/3, tickets, accounts, invoices, bills of exchange, &c., cartes de visite, &c., almanacs pasted on card or not, patterns for embroidery, &c., all the above printed, engraved or lithographed, but not gilt or silvered £5, all other paper wares, such as playing cards of all kinds, shades, fans, even mounted or common wood, or simply varnished or lacquered, bouquet holders, &c. £6 2s, books of all kinds free, maps and atlases, photographs, engravings, lithographs, &c., and music lithographed and printed, albums, free, ink for writing £1 0s 5d per cwt, ditto printing 4/1, pencils, common, without cases 12/2, pencils, of ordinary or fine wood, varnished, with or without cases £1 5s per lb, pens, metallic £4 1s 3d per cwt, ditto quills £2 0s 8d, sealing-wax £1 8s 5d; **Rus.** Pasteboard not otherwise specified, paper bobbins for silk winding, tarred paper for roofing, &c. 4/11, [†] papier mâché and carton-pierre, not manufactured, and cardboard of wood pulp 2/2, [†] articles of papier mâché and carton pierre, not polished or painted, 4/11, [†] articles of papier mâché polished or painted (except small wares) £2 0s 11d, [†] unsized paper, white or coloured, without ornaments, ruled for music, and paper for embroidery, without pattern, also glazed pasteboard of all kinds £1 1s 8d, ^{*} sized paper, white or coloured, paper hangings and borders thereof £2 9s 3d, [†] without ornaments, transparent and tracing paper £1 12s 6d, [†] writing or printing paper, gilt or silvered or ornamented with pastings, borders, crests, cyphers, pictures, &c., envelopes, lamp shades, and artificial flowers £4 6s 8d, [†] paper ornaments used for sweetmeats 3/4, [†] as well as engravings, oleographs, prints, drawings, &c., printed, lithographed or photographed £3 17s 9¹/₂d, [†] paper for cigarettes, tissue paper, also papers with ornaments and drawings for printers', bookbinders' and confectioners' work, paper for embroidery, with patterns, coloured or not, bookbinders' work, all kinds, and office and copying books, bound or not £5 19s 2d, [†] books and publications printed in foreign languages, including those containing in their text music, charts, plans, drawings or engravings, printed, oleographed or photographed, free, music, maps and drawings, printed, lithographed or photographed £1 19s 5d, writing machines free, books printed abroad in the Russian language, unbound £1 9s 7d, bound £2 4s 4d, pens, pencils, &c. £6 10s 1d, [†] ink and ink powder 19/8, [†] sealing-wax £1 1s 8d, [†] rags, paper pulp of all kinds free; **Sal.** Per ream, letter paper, ruled or not, 10in. long 3/1¹/₂, 15in long 5/-, plain white (crown brand) 2/6, ditto foolscap 3/8, linen, cigarette, thin for copying presses 6/3, coloured, for advertising 9/3, coloured China, for flowers, &c. 2¹/₂d, gold or silver gilt £2 9s 4d, letter with printed headings £1 4s 8d, letter, large size £3 5s 10¹/₂d, brown wrapping 2/3, printer's 12/4, drying 9/4¹/₂, invoice, ruled 5/3, ticket or note 12/4, glazed 9/4¹/₂, card, per lb. ordinary 1d, fancy 4d, coloured wall, per roll 7¹/₂d, ditto gilt 1/10¹/₂, wall with landscapes, illumination, &c. per tira 7¹/₂d; **S.** Paper, straw paper & common packing paper 4/5, endless, unsized or half-sized, for printing 4/0¹/₂, for writing or lithographing or for prints, 11/2, cut paper, paper made by hand, ruled paper, also writing paper with lithographed headings 19/9¹/₂, paper hangings, ornamented with gold, silver, flock or glass £2 12s 10d, other kinds 9/8, other kinds of paper 14/2, cardboard, in sheets and in boxes lined with common paper, articles of papier mâché or carton-pierre, not finished 2/9¹/₂ articles of papier mâché finished and cardboard boxes adorned or lined with fine paper or other materials

Paper, &c.—*continued.*

- £2 14s 9d*, prints, maps, &c. *£2 10s 10d*, ink for writing or printing 9/9, pencils 13/8, sealing wax 4/0½, books, or other printed papers, bound or unbound, in Spanish 15/7½, in foreign languages 4/0½; **Sn.** Paper, pasteboard for sheathing ships, and press, polishing, or emery paper free, ditto other kinds 2/10, cartridge, packing, blotting, or other similar papers 1/1½, gilt, silvered or glazed paper 11/4, other kinds, including ruled paper 5/8, envelopes and paper bags 11/4, forms for bills, &c. 8/6, paper-hangings and borders 7/4, articles of paper or pasteboard, unlacquered 19/9, lacquered, and articles of papier mâché *£1 13s 11d*, prints, engravings, lithographs or photographs 8/6, playing cards 1½d per pack, ink, writing 3/5 per cwt, printing 3 11½, sealing-wax *£1 6s 6d*, pencils, blacklead 19/9, pens *£1 13s 11d*, books, printed in the Swedish language, bound or unbound 14/1, other printed matter free, books, blank or merely ruled, bound 20% above the duty on paper, albums *£2 16s 6d*, rags free; **Sz.** Fibre for paper making 7½d, grey packing and yellow paper of straw paste, with wrinkled surface on both sides 1½d, paper for printing and writing, sized or not, drawing paper letter and silk paper, of one colour 2/10½d, packing paper, not otherwise mentioned, glass, sand, and emery paper 4/0½d, tickets, forms, wrappers, etc., placards, prospectuses, etc., railway tickets, printed 12/2½d, paper collars, cuffs, etc., 20/4½d, playing cards 48/9½d.; **US.** T. Paper, stationery, &c., of all kinds 8% a v; **US.** Paper, sheathing 10% a v printing, unsized. for books and newspapers 15%, sized or glazed, for printing purposes 20%, drawing paper, foolscap, letter paper, note paper, envelopes, and all paper not otherwise mentioned, paper-hangings 25%, manufactures of paper, or of which paper is a component material, not otherwise specified, pasteboard 15%, paper, and all other fancy boxes 35%, papier mâché manufactures 30%, pamphlets, books bound or unbound, and all printed matter not specially mentioned 25%, blank books, bound or unbound 20%, engravings, maps, and charts 25%, playing cards 100%, pencils of all kinds except slate, in wooden cases 2/1 per gross and 30% a v, pencil leads, not in wood 10%, slate pencils 30%, inks of all kinds and ink powder 30%, sealing-wax 20%, pens, metallic 6d per gross, books, consisting of paper folded and sewn together in such a manner as to hold a number of rows of pins of assorted sizes, and enclosed in paper wrappers firmly attached to the paper in which the pins are inserted, the whole constituting what is known as a pin book 100% a v; **USC.** Per kilog, paper in newspapers, pamphlets and printed sheets ½d, white, without glue and coloured, for printing, straw, or any other ordinary kind for wrapping up or packing, sand paper, cigarette paper 2½d, writing paper, envelopes, and any other kind not mentioned, and office utensils not otherwise mentioned 10d, fine white paper (foolscap paper) 5d, ruled paper for music 1/3, blank books ruled or not, note books 1/8, paper and cardboard in sheets, maps and engravings of any kind, written or printed music, gilt or silvered entirely 1/8, tapestry paper, marbled or coloured, for covers of books and other uses 10d, cardboard for printing, book-binding, lithography, and other industrial uses 2½d, cardboard in any other form 10d, playing cards 5/, pencils 10d, inks for printing, bookbinding and lithography, liquid or solid ½d, black writing ink 2½d, coloured writing ink 5d; **Ur.** Business papers, printed or lithographed 48% a v, printed books bound ditto, printing ink paper for newspapers, lithographic papers, not cut, or in sheets 87 by 54 centimetres 8% a v, all books printed in native language, geographical charts and globes 6% a v, playing cards 10 pesos per gross; **Ven.** 1st class, white printing, ungummed, 2nd class, cigarette, 3rd class, writing paper, brown and others not specified, sand paper, 4th class, painted wall paper, 5th class, manufactured, not specified, 6th class, gilt or silvered, stamped in relief or flowered, 9th class, envelopes, 1st class, books, unbound, or in rustic binding, printed (treating of science, arts, or industries) catalogues, newspapers and periodicals, copy for elementary schools, 3rd class, pamphlets, volumes and books for primary schools not above comprehended, 5th class, blank, 4th class, books, bound, except those in the 8th class, 8th class, when bindings contain velvet, silk, mother of pearl, ivory, tortoise shell, or gilt or plated ornaments, 1st class, maps and globes, 2nd class, sheet music, 5th class, chromos and drawings, 9th class, labels and circulars printed or lithographed, 5th class, blank, also engraved or stamped paper and portfolios.

Paper-hangings.—See Paper.

Parasols.—See Umbrellas and Parasols.

Parchment.—See Hides and Skins.

Pasteboard.—See Paper, &c.

Patent Fuel.—See Coal.

Pencils.—See Paper.

Pens.—See Paper, &c., also Iron and Steel.

Pepsine.—**I.** Acidulated with hydrochloric acid £2 8s.

Perambulators.—See Carriages.

Perfumed Oils.—See Perfumery.

Perfumery, per cwt —**A.** Perfumery wares made up, and rouge £2 10s 10d, scented soap 15/3, * non alcoholic scented waters 6/1, * rosemary oil 6/1, * other perfumed oils, pomades, and aromatic vinegar 10/2, * (*when these articles are imported into Austria made up as perfumery wares, they are charged £2 10s 10d per cwt); **Ar.** Of all kinds 50% a v; **B.** Scented soap 2/5½, perfumery wares, as pomatum, perfumed oils, scented waters, rouge, &c. 10% a v, alcoholic scents 5/1½ per gallon; **Br.** Excluding essences and pure oil 1'000 per kilo, perfumes in pots, flasks, or vases of porcelain, gilded or ornamented, and of No. 2 glass, pay double the respective duties; **C.** 35% a v; **Cor.** 20% a v; **D.** Scented waters, essential oils, and pomatum, scented soap £1 17s 8d per cwt, rouge £1 12s 11d; **F.** Perfumery mixed with alcohol 1/4½ per gallon of pure spirit, excise duty in addition 5/8, ditto perfumery without admixture of alcohol, scented soap 3/3 per cwt. (**NOTE.**—An additional excise duty is charged on transparent soap manufactured with alcohol, at the rate of 19/1 per cwt.) Other kinds 4/10½, essential oils other than of roses £2 0s 8d; **G.** Pomatum and scented oils, also scented waters not containing alcohol, in vessels containing at least 10 kilos 10/2, rosemary oil 6/1, other kinds of perfumery £2 10s 10d, scented soap 15/3; **Gr.** Perfumery wares, scented soap, pomatum, perfumed waters, &c. £3; **Hay.** Scented waters in bottles 10d each, in phials or flasks 2/1 per doz; **H.** Scented waters, essential oils, Macassar oil and perfumery wares 5% a v, scented soap 5/1, excise duty in addition 8/6, perfumery containing alcohol, for each 50% of alcohol import duty 3½d per gallon, excise duty 4/6½; **I.** Per cwt (including weight of bottle or wrapper) alcoholic £2 0s 7½d, with addition of 144 lire for the alcohol contained, non-alcoholic £2 0s 7½d; **Ni.** Scents and perfumery prepared with alcohol same as spirits, all other 10% a v; **Nic.** Cologne water, Florida water 3d, all kinds perfumery 4d per lb; **N.** Scented waters not containing spirits 10% a v, perfumed waters and aromatic vinegar (weight of bottles included) £2 16s 6d, essential oils (weight of bottles included) £5 12s 11d, ha'r oil (weight of bottles included) £1 17s 10d, pomatum (weight of interior package included) 19 s, transparent soap 16/11, other kinds of toilet soap 5/8; **PR.** Perfumery and essences 58 cs per kilog; **P.** Perfumery of every description (including bottles, but excepting the boxes of paper or wood) 220 r per kilo; **R.** Eau de cologne, and all other scented waters, alcoholic or non-alcoholic, dentifrices, toilette waters, scents of all kinds and perfumed vinegars £2 0s 9d, toilet soaps, pomade of all kinds, and perfumed oil, powders of all kinds, perfumed or not, cosmetiques, liquid or in tablets (almond paste and other) £3 13s 2d; **Rus.** Perfumed waters without admixture of alcohol, as rose water, orange-flower water, cherry-laurel water, &c. £2 3s 4d,† perfumed spirits eau de Cologne, des Alpes, de la reine de Hongrie, and eau de Melisse £5 8s 4d,† perfumed spirits other kinds, also pomatum £16 5s 1d,† rouge, violet powder, pastilles, tooth powder, sachets, &c. and all other perfumery and cosmetics not otherwise enumerated (including the weight of wrapper or case) £6 10s 1d,† scented soap £2 19s 1d†; **S.** Perfumery and essences, scented soap £3 13s 6d; **Sn.** Scented waters (weight of bottles included) £2 16s 6d, pomatum 19/9, essential oils £2 16s 6d, scented soap 15/10; **Sz.** Scented soap 7½d, essential oils and essences 16/3, perfumery wares 12/2, cosmetics £1 8s 5d; **T.** All kinds 8%; **US.** scented soap £3 10s, perfumery, alcoholic 10/ per gallon and 50% a v, proprietary preparations (non-alcoholic, such as cosmetiques, waters, essences, and toilet preparations 50%); **USC.** Florida water, divina, and kananag 1/3, essences, cream, &c) **Ur.** Ven. 4/; **Ur.** Perfumery 51% a v; **Ven.** 5th class, perfumery, essences; and extracts.

Petroleum, per cwt.—**A.** Raw and not fit for lighting purposes without refining or purifying, (a) of a density exceeding 830° at 12° Reaumur $1/14$, (b) of a density of 830° and less $2/04$, raw and fit for lighting purposes without refining or purifying $10/2$, refined or half refined (a) of a density exceeding 870° $1/11\frac{1}{2}$,* (b) of a density of 870° and less $10/2$, refined of a density of less than 770° for industrial purposes and not intended to be used for lubricating purposes or for lighting (under special conditions) free (*consumption duty included); **B.** All kinds free; **Br.** 30 to $1'000$ per kilo; **C.** Petroleum, unrefined 15% a v; **D.** $4/8\frac{1}{2}$; **F.** Of British origin, raw $7/4$, refined $10/2$, of other than British origin, or British refining, but imported from England, raw $9/4$, refined $12/2$; **G.** All kinds $3/0\frac{1}{2}$. (NOTE.—Mineral oil not intended for lighting purposes may be admitted free by special permission.) **Gr. H. I.** **Gr.** $13/9$; **H.** All kinds $5\frac{1}{2}$ d; **I.** In demijohns or other similar vessels;—raw $16/7\frac{1}{2}$,* refined $20/8\frac{1}{2}$,* in other vessels;—raw $15/5\frac{1}{2}$,* refined $19/1\frac{1}{2}$. (Mineral and resinous oils imported in demijohns or similar vessels, barrels, casks, or tins, pay on the net weight; when in other vessels, on the gross weight; but when in bulk, on the actual weight of the oil. Heavy oils distilled to the temperature of 310 degrees;—(1) containing less than 20% of light oil $2/5\frac{1}{2}$ † (2) containing from 20% to 30% of light oil $4/10\frac{1}{2}$. Heavy oils imported in bulk pay 20% additional to these duties.) **Nl.** 6% a v. (NOTE.—As soon as an excise duty on petroleum shall be levied to an amount of $11/75$ per hectolitre, the import duty on this article will be at the rate of 25 per hectolitre.) **N.** refuse refined and unrefined $2/3\frac{1}{2}$, oil of resin and residue from the preparation of mineral oil, unrefined and refined (including vaseline and wagon grease) $2/3\frac{1}{2}$; **P.** $12/6$; **R. Rus. Sn R.** Free; **Rus.** $9/9$; **S.** $8/6\frac{1}{2}$, refined $13/$; **Sn.** Raw free; **Sz. US. USC.** refined $1/1\frac{1}{2}$; **Sz.** 6 d; **T.** 8% a v; **US.** Raw 10% ; **USC.** Petroleum 5 d per kilo; **Ur.** Not refined 2 c per litre, not refined, in casks 1 c per litre, refined 20% .

Photographs.—See Paper, &c.

Pianos.—**A.** $10/2$ per cwt; **B.** 6% a v; **Br.** cottages $120'000$ each, grands $180'000$ and 30% ; **C.** Pianos and musical instruments of all kinds 35% a v; **D.** 10% ; **F.** Cottage 62 each, grand 63 ; **G.** $15/3$ per cwt; **Gr.** Cottage 63 4 s each, grand 65 4 s; **H.** 5% a v; **I.** Cottage 62 8 s each, grand 63 ; **N.** Cottage 62 4 s 5 d, grand 63 6 s 8 d; **P.** $30,000$ r each; **R.** 6% a v; **Rus.** Cottage 610 9 s each, grand 617 8 s 4 d; **S.** 66 1 s 4 d each; **Sn.** Cottage 63 6 s 8 d, grand 65 1 s 1 d; **Sz.** $6/6$ per cwt; **T.** 8% a v; **US.** 25% .

Pickles and Sauces, per cwt.—**A.** In bottles or jars 62 8 s, in casks $1/6\frac{1}{2}$; **B.** Pickles $4/0\frac{1}{2}$, Sauces 15% a v; **Br.** 200 and 30% per kilo; **D.** Sauces $16/6$ per cwt, pickles $2/4\frac{1}{2}$; **F.** Pickles $1/2\frac{1}{2}$, sauces $10/2$; **G.** $1/1$ 10 s 6 d; **Gr.** Pickles 61 12 s, sauces 63 4 s; **H.** Sauces 61 1 s 2 d, pickles 5% a v; **I.** Pickles $3/3$, sauces $11/2$; **M.** Preserves, pickles, mustard, and sauces, not otherwise distinguished, 1 w $0'25$; **N.** Sauces, including weight of bottles $13/7$, pickles $11/4$; **P.** Sauces 61 4 s 1 d, pickles $8/8\frac{1}{2}$; **R.** Sauces 62 0 s 8 d; **Rus.** 61 1 s 9 s 5 d, with an addition of 20% on each round of duty leviable; **S.** 61 16 s 7 d; **Sn.** Sauces 61 8 s 3 d, pickles $16/11$; **Sz.** Pickles in jars exceeding 5 kilos in weight $2/10\frac{1}{2}$, ditto, in jars or bottles of 5 kilos or less in weight $6/6$, sauces 61 0 s 4 d; **T.** 8% a v; **US.** Pickles, sauces 35% .

Pictures.—**A.** Free; **Ar.** Works of art 40% a v; **B.** Free; **Ch.** Paintings $0'1'0'0$ each, pictures on pith or rice paper $0'1'0'0$ per 100 ; **Cor.** Works of art 20% a v, paintings 25% , pictures framed or not 25% ; **D.** Free; **F.** Free; **G.** Free; **Gr.** Free; **Hi.** Prints, &c., on paper free, all other 10% ; **Hay.** Art works 20% a v; **H.** Free; **I.** Free; **Nl.** Free; **Nic.** Per lb, art work, stationery 3 d, paintings, lithographs or photos, loose or in frames, with or without glasses $1/8\frac{1}{2}$, pictures on paper (saints, &c.) 5 d; **N.** Free; **Per.** Works of art 45% a v; **PR.** Pictures or paintings, oil 1 p 45 c each; **P.** $5'45\%$ a v; **R.** Free; **Rus.** Free; **S.** Oil paintings $8\frac{1}{2}$ d each; **Sn.** Free; **Sz.** 4 d per cwt; **T.** 8% a v; **US.** 30% ; **Ur.** Monuments, statues, &c. (marble) 30 c; **Ven.** 5th class, paintings and portraits on canvas wood, paper, stone, or metal, 1st class, monumental.

Pig Iron.—See Iron and Steel.

Pin-books.—See Paper, &c.

Pipes (Iron).—See Iron and Steel.

- Pitch**, per cwt.—**A.** 6d; **B.** Free; **Cor.** 5% a v; **D.** 6½d; **E.** Per kilo 1d; **F.** Free; **G.** Free; **Gr.** Free; **Hi.** Free; **Hay.** Per barrel 2/1; **H.** Free; **I.** Free; **Nic.** Per lb ½d; **N.** Free; **Per.** 20%; **P.** Free; **R.** 4/1; **Rus.** 6d per cwt gross, with an addition of 20% on each rouble of duty leviable; **Sal.** Per lb g w ¾d; **S.** 2d; **Sn.** Free; **Sz.** 1d per cwt; **T.** 8% a v; **US.** 20%; **USC.** Per kilog, block used in constructing vessels 2½d; **Ven.** 2nd class.
- Pitchforks.**—See Iron and Steel.
- Plate Glass.**—See Glass and Glass Wares.
- Playing Cards.**—See Paper, &c.
- Ploughs and Ploughshares.**—See Iron and Steel.
- Plush.**—See Woven Manufactures.
- Polish.**—See Grease.
- Pomades.**—See Perfumery.
- Porcelain.**—See Earthenware and Porcelain.
- Porcelain Plaques.**—See Earthenware and Porcelain.
- Pork (Salted)**, per cwt.—**A.** 3/0½; **B.** Free; **D.** Free; **F.** 1/10; **G.** 10/2; **Gr.** Free; **H.** Salted 10½d, smoked or dried 1/0½; **I.** 8/2; **N.** Smoked 11/4, other kinds free; **PR.** Per 100 kilos, 4 p 6 cts; **P.** 13/8; **R.** Salted 12/2, smoked 12 os 8d; **Rus.** 7/11*; **S.** 6/1; **Sn.** Free; **Sz.** 1/7½; **T.** 8% a v; **US.** 4/8.
- Portmanteaux.**—See Hides and Skins.
- Printing Type.**—See Lead and Lead Wares.
- Quiltings.**—See Woven Manufactures.
- Rails, Railway Carriages, Railway Points, Railway Wheels.**—See Iron and Steel.
- Ready-made Clothing.**—See India Rubber and Gutta Percha, also Woven Manufactures.
- Red Lead.**—See Lead and Lead Wares.
- Ribbons.**—See Woven Manufactures.
- Rivets.**—See Iron and Steel.
- Rock Oils.**—See Petroleum.
- Rock Salt.**—See Salt.
- Roofing Slates.**—**A.** Free; **B.** 1/7½ 1,000; **D.** Free; **F.** 1/7½ 1,000; **G.** 9½d per cwt, entering by sea 3d; **Gr.** Free; **H.** Free; **I.** Free; **N.** Free; **P.** Free; **R.** Not specified; **Rus.** 3½d per cwt; **S.** 6d per ton; **Sn.** Free; **Sz.** 9½d per ton; **T.** 8% a v; **US.** 25%.
- Rosin.**—**A.** Common 6d per cwt, refined 1/6; **B.** Free; **Cor.** 7½%; **D.** Brown and yellow rosin 6½d, other kinds 11/9; **E.** Per kil 1/0½; **F.** 9½d; **G.** Free; **Gr.** Free; **Hi.** Free; **Hay.** Per barrel 2/1; **H.** Free; **I.** 1½; **Nic.** ¾d per lb; **N.** Free; **Per.** 10%; **P.** Common free, other kinds 5/45% a v; **R.** 4/1 per cwt; **Rus.** White rosin 1/1, other kinds 3/3; **Sal.** ¾d per lb g w; **S.** Pine rosin 2d, other kinds 4/0½; **Sn.** Free; **Sz.** Raw 1d, refined 7½d; **T.** 8% a v; **US.** Raw 10%, refined 20%; **USC.** Per kilo ½d.
- Rouge.**—See Perfumery.
- Rugs.**—See Woven Manufactures.
- Rum.**—See Spirits.
- Russia Leather.**—See Hides and Skins.
- Sacking.**—See Woven Manufactures.
- Saccharin.**—**B.** 140 francs per kilo; **P.** 13 6s 8d per kilo; **S.** Prohibited for purposes of food; **Sz.** 4/ per cwt.
- Saddlery and Harness.**—See Hides and Skins.
- Sailcloth.**—See Woven Manufactures.
- Sails.**—See Woven Manufactures, Linen (Hemp and Jute).
- Sal Ammoniac**, per cwt.—**A.** 1/6½; **B.** Free; **Br.** 1/50 and 30% per kilo; **D.** Free; **F.** Raw 3/3, refined 4/10½; **G.** Free; **Gr.** Free; **H.** Free; **I.** 1/7½; **N.** Free; **P.** 5% a v; **R.** Free; **Rus.** 2/2; **S.** 4½d; **Sn.** Free; **Sz.** 5d; **T.** 8% a v; **US.** 10%.
- Salmon.**—See Fish.
- Saltpetre**, per cwt.—**A.** Raw (nitrate of soda) free, refined all kinds 1/6½; **B.** Free; **D.** 1/2; **F.** Free; **G.** Free; **Gr.** Free; **H.** Free; **I.** Nitrate of soda raw free, ditto refined, and nitrate of potash 1/2½; **N.** Free; **P.** Nitrate of potash 7/6, nitrate of soda free; **R.** Free; **Rus.** 1/4s 8d; **S.** Nitrate of potash 7d nitrate of soda 1½d; **Sn.** Free; **Sz.** Unrefined 1d, refined 5d; **T.** 8% a v; **US.** Nitrate of potash, unrefined 4/8, refined 7/1, nitrate of soda, free.

Salt, per cwt.—**A.** 10½d. Salt can only be imported into Austria by special permission, and is subject to a licence duty in addition of 9/6 per cwt. Under certain conditions salt may be imported free for chemical works and other industrial purposes; **Ar.** 10% a v; **B.** Salt refined and unrefined free; **D.** Rough rock salt in blocks 11½d, other kinds 1/2; **F.** Salt unrefined or refined, if European 1/ per cwt, from Senegal free; **G.** By land frontier 6/6, by sea 6/1; **Gr.** Prohibited; **H.** salt unrefined free, ditto refined 10/2, excise duty on unrefined salt 7/7; **I.** Sea and rock salts prohibited. Every mixture of soluble salts is considered as salt in which "*clora*" exists in proportion greater than 15·2%, and "*sodium*" in greater proportion than 9·8%; **M.** Salt common or for table use g w o'03; **Nl.** 2½ per 100 kilos; **N.** Rock salt 2d, refined salt in blocks and lumps 1/10½, other cooking salt (at the Custom Houses of Hammerfest, Vardo, and Vadso) 8½d per bushel, other cooking salt (at other places) 1½d; **P.** 1/5 per bushel; **R.** Prohibited; **Rus.** Into ports of the White Sea 11½d per cwt, into ports of the Black Sea and Sea of Azov prohibited, on any other frontier 1/11½, imported for the manufacture of soda free; **S.** 2½d; **Sn.** Free; **Sz.** Common 1½d, table salt in packets 4/0½. (NOTE.—Salt can only be imported into Switzerland by special permission of the Cantonal authorities.) **T.** Prohibited; **US.** Salt in sacks, barrels, &c., 6½d, in bulk 4½d; **Ur.** Rock Salt 6% a v.

Salted Beef.—See Beef Salted.

Sardines.—See Fish.

Sauces.—See Pickles.

Scarves.—See Woven Manufactures.

Scented Soap.—See Perfumery, also Soaps.

Scented Waters.—See Perfumery.

Scissors.—See Iron and Steel.

Scrap Iron.—See Iron and Steel.

Scythes.—See Iron and Steel.

Sealing-Wax.—See Paper, &c.

Seed Oils, per cwt.—**A.** In casks, skins, and bladders 1/6½, in bottles and jars 10/2; **B.** Free; **Br.** per kilo, 70 to 3'500; **C.** Oil of every kind 25% a v; **Ch.** Hemp seed and cotton, 100 catties 0'3'0'0; **Cor.** Rapeseed 8% a v; **D.** 4/8½; **F.** 2/5½; **G.** In bottles or jars 10/2, in casks 2/0½; **Gr.** 6/4½; **Hay.** Linseed 6d per gallon; **H.** 5½d; **I.** 5/11½; **N.** 2/3½; **PR.** Per 100 kilos 6 pesos 75 c; **P.** Linseed oil 9/11½, other kinds 17/5; **R.** 8/2; **Rus.** 2/4; **Sal.** Linseed 2/4 per gallon; **S.** 9/5; **Sn.** 3/11½; **Sz.** 4½d; **T.** 8% a v; **US.** Rape seed and hemp seed 6d per gallon, linseed and cotton seed 1/3; **USC.** Per kilo, Linseed oil for preparing paint 5d; **Ur.** g w linseed per litre 5 c; **Ven.** 4th class linseed.

Sewing Machines.—See Iron and Steel.

Shawls.—See Woven Manufactures (Silk)

Shears.—See Iron and Steel.

Sheep Skins.—See Hides and Skins.

Sheet Iron.—See Iron and Steel.

Sheets.—See Woven Manufactures.

Shell Fish.—See Fish.

Ships and Boats.—**A.** Of wood, with or without sheathing of iron or copper 9½d per ton measurement, of iron or other metals, and steam vessels of all kinds 10/. (NOTE.—The engines of steam vessels are charged separately.) **B.** Free; **D.** 3% a v; **F.** Sea vessels of wood or iron 1/7½ per ton burden, river boats of wood 8/, ditto of iron £1 12s; **G.** Free; **Gr.** Free; **H.** 1% a v; **I.** Free; **N.** Free; **P.** New or navigable exceeding 200 cubic metres, and steam tugs with a gross tonnage exceeding 300 cubic metres, a tax of 2% a v, sailing or steam ships, new or ready for use, up to 200 cubic metres 12% a v, vessels condemned as unseaworthy (on the sale price) 7% a v; **R.** Steamships of all kinds 1/7½ per ton registered, sailing ships of all kinds 9½d, dredgers 9½d per ton gross, boats common of wood 8/ each, ditto gauging up to two tons included 16/, ditto from two to five tons £2, ditto from five to ten tons £4, barges and luggers of deal 4/9½ per ton gross, of oak 8/0½, ditto pleasure boats of wood or metal, or of wood and metal combined £7 4s each; **Rus.** Sea and river-going vessels of every description, with or without rigging (1) iron-built, per ton displacement, first 100 tons 38 roubles per ton, above 100 and not exceeding 1,500 tons 20 roubles per ton, above 1,500 tons 10 roubles per ton, (2) wooden vessels, per ton displacement, first 100 tons 12 roubles per ton, above 100 tons 12 roubles per ton; iron-built vessels, imported in parts, with or without engines, shall pay duty

Ships and Boats—continued.

on each part according to their corresponding sections; all articles entered in a ship's inventory shall also pay duty under corresponding heads of tariff, except such articles as are necessary for the safe navigation of the ship or may be permanently fitted to her hull; **S.** Wooden ships and boats up to 50 tons register £1 12s per ton registered, wooden ships from 51 to 300 tons register £1 os 10d, ditto of 301 tons register and above 11/2, iron ships of all kinds 10s; **Sn.** Free; **Sz.** 8% a v; **T.** 8% a v; **US.** Prohibited.

Ships' Cables.—See Iron and Steel.

Shot.—See Iron and Steel.

Shovels.—See Iron and Steel.

Silk Yarns and Thread.—See Yarns (Silk).

Silk Woven Manufactures.—See Woven Manufactures (Silk).

Silver.—See Gold and Silver Wares.

Silver Leaf.—See Gold and Silver Wares.

Silver Wares.—See Gold and Silver Wares.

Silver Wire.—See Gold and Silver Wares.

Skates.—See Iron and Steel.

Slag.—See Iron and Steel.

Sledges.—See Carriages.

Snuff.—See Tobacco, &c.

Soaps, per cwt.—**A.** Common 2/6½, fine soap in cakes, tablets, cases and jars, and scented soap 15/3; **B.** All kinds 2/5½; **Br.** Not perfumed, black or brown '60 per kilo, yellow '150, white '300; **Ch.** Free; **Cor.** Common 5% a v, superior 10% a v; **D.** Scented soap, soap in tablets and soap powder £1 17s 8d, other kinds 2/4½; **E.** Per kilo 1/0½; **F.** Scented 3/3,* other 2/5½, (*exclusive of excise duty on transparent soap, see Perfumery); **G.** Soft soap 2/6½, hard soap not otherwise specified, in bars, &c. 5/1, soap in tablets, balls, boxes, jars, pots, &c., perfumed soap of all kinds 15/3; **Gr.** Common 6/4½, other, not scented 12/0½, scented £8; **Hl.** Free; **Hay.** Per cwt 4/2, toilet per dozen 8d; **H.** Scented soap 5/1, excise duty in addition 8/6, other kinds 3/9½, excise duty in addition 8/6; **I.** Common 3/3, perfumed 16/3,* glycerine 24/4½, (*Soap in tablets, balls, or boxes is subject to the same duty as perfumed soap); **J.** Soap bar 50 cents per 100 cattie; **Nic.** 4d per lb, perfumed 4d; **N.** Soft soap 1/10½, transparent soap 16/11, other kinds 5/8; **Per.** 70%; **PR.** Per 100 kilos, common 3 pes 75 cts; **P.** 50 r per kilo; **R.** Soap except perfumed 12/2, toilet £3 13s 2d; **Rus.** Soap of all kinds not perfumed 14/9,* ditto scented in cakes, in powder or liquid £2 19s 1d; **Sal.** Common 3/4d, fancy 9d per lb, g w; **S.** Common 6/5, scented £3 11s; **Sn.** Soft soap 2/10, other kinds not perfumed 5/8, perfumed 13/10; **Sz.** 7½d; **T.** All kinds 8% a v; **US.** Scented and fancy soaps £3 10s, other kinds 20% a v; **USC.** Per kilo, common, of oil 10d, of rosin, or tallow 2½d, perfumed 5/; **Ven.** 5th class, common, castile, perfumed.

Soda, Carbonate of, Bicarbonate of, Caustic, Crystals of, and Soda Ash.—See Alkali.

Soda, Sulphite and Hyposulphite of.—See Bleaching Materials.

Sole Leather.—See Hides and Skins.

Spirits, per cwt.—**A.** Spirits, plain, of all kinds £3 17s 3d. (NOTE.—Consumption duty is included in the above rates.) **Ar.** Of all kinds 50%

a v, wine, common, in casks 5 cts per litre, ditto fine, in casks 20 cts, ditto of all kinds, in bottles 20 cts, beer or cider 10 cts; **B.** Spirits for drinking and liqueurs of all kinds, import duty, in casks of 50 degrees strength or less 3/7½ (per gallon), ditto for every degree above

50 degrees '87d, in bottles of whatever strength 7/3½, excise duty in addition 5% of the above duties, other spirits 4/10½; **Br.** Per litre,

absinthe, Kirsch Wasser '900 and 40%, alcohol, brandy, cognac, rum, whiskey '600 and 40%, Geneva '200 and 40%, all other kinds '400 and

40%, mineral water '100 and 30% per kilo; **C.** 42 cts per litre,

D. Geneva 32 cts, rum 42 cts; **D.** Spirits, plain, in casks or bottles 2/7½, in casks, of 8 Danish degrees of strength and less 1/2½. (NOTE.—

An additional duty of ¼d per gallon is levied for every ½ of a degree

of strength above 8.) Spirits, sweetened, in flasks and bottles 2/7½

per cwt, in casks 1/11½; **E.** Per kil, 6d; **F.** Import duty, brandy and

liqueurs in bottles 1/2 per gallon, brandy in casks 1/2 per gallon or

pure alcohol, other kinds, except absinthe, in casks or bottles 1/1,

ditto excise duty in addition, brandy, liqueurs and absinthe 5/8

ditto; **G.** All kinds £2 os 8d per cwt; **Gr.** Rosoglio and other

liqueurs £3 4s, all other spirituous liquors up to 70 degrees of the

Spirits—continued.

- areometer (centigrade), including brandy, $1/11\frac{1}{2}$ per gallon, over 70 degrees $2/9\frac{1}{2}$; **HI.** Alcohol and others of same strength, per gallon £2 15 8d, alcohol for mechanical and scientific purposes, per gallon $2/1$; **Hay.** Brandy, per gallon $2/1$, per box of 12 bottles $4/2$, per box, quarts, 12 bottles $6/3$; spirit of wine per gallon $2/1$; gin ditto $1/0\frac{1}{2}$, ditto box of 12 flasks $3/1\frac{1}{2}$, ditto ditto pints $2/1$; **H.** Spirits of all kinds (50% alcohol), import duty $3/4$ d, excise duty in addition $4/6\frac{1}{2}$.
- I.** (NOTE.—Methylated spirits are exempt from excise duty.) **I.** Pure in casks, &c. (casks, &c., included) $9/6$ per hectolitre, sweetened or flavoured in casks, &c. (casks, &c., included) $4/8$ per hectolitre; all kinds in bottles, from $\frac{1}{4}$ to 1 litre in capacity $5/76$ d per bottle, $\frac{1}{2}$ litre or less $4/32$ d per bottle; **M.** Spirits of all kinds, in bottles, without allowance for breakage or leakage, n w o'50, ditto in wood n w o'40; **NI.** Per hectolitre of liquid containing 50 litres of alcohol at a temperature of 15 deg. of the Cent. thermometer £3 16s 8d, or in case the excise duty on native spirits levied in N.I. is higher, so many florins more as shall be fixed by Colonial ordinance; **Nic.** Government monopoly, each bottle pays if above 12° to 25° Cartier $1/4\frac{1}{2}$; about 6 of such bottles to imported gallon, with special permit of the Government, if not then 25° Cartier as allowed each bottle pays extra $1/4$ d, for each degree additional; **N.** Spirits, in flasks or bottles $6/10$, in casks, &c. (of proof strength) £5 15 8d per cwt. NOTE.—For every $\frac{1}{2}$ degree below proof, deductions of duty are made as follows below:—
- | | |
|------------------------------|----------------|
| 100 to 90 deduction of | 8'12d per cwt. |
| 90 " 85 " " | 7'45d " " |
| 85 " 75 " " | 7'11d " " |
| 75 " 60 " " | 6'43d " " |
| 60 " 45 " " | 6'09d " " |
| 45 " 25 " " | 4'41d " " |
| 25 " " " " | 5'08d " " |
- (a) Sweetened spirits, or spirits mixed with any substance affecting the alleged strength pay as spirits of 100 degrees strength; **Per.** 70%; **PR.** Per hectolitre, brandy, common, and aniseed 4 p 66 c; gin 4 p 64 c; cognac brandy, and rum 13 p 85 c; liquors, per litre 20 c; **P.** Brandy and alcohol pure, in casks and demijohns, per decalitre of pure spirit 1'500 r, ditto in bottles, &c., liquids not otherwise distinguished, per decalitre of liquid 1'900 r; **R.** All kinds $10/2$ per cwt; **Rus.** Arrack, rum French brandy and spirits distilled from plums, in barrels or casks £5 8s 4d per cwt gross, in bottles $2/4\frac{1}{2}$ per bottle, gin, whisky, liqueurs, Kirsch Wasser, spirituous infusions and corn spirit, in bottles $2/4\frac{1}{2}$. (NOTE.—The importation of corn spirit in casks is prohibited. **Sal.** £1 10s $10\frac{1}{2}$ d per dozen; **S.** Brandy, &c. $7/4$ d per gallon, transitory duty in addition to above $1/4$ d per gallon, liqueurs $2/9\frac{1}{2}$.) **Sn.** Per gallon, brandies and spirits, in casks or barrels, of corn, potatoes, and other agricultural products (of the strength of 50% of alcohol weighed at the temperature of 15° Celsius) $3/0\frac{1}{2}$ of rice (arrack), also of sugar (rum) $3/9\frac{1}{2}$; of the grape, when manufactured in France and imported direct by sea $9/4$, ditto when otherwise manufactured or imported, also of other fruits $3/9\frac{1}{2}$, in other receptacles of any description (without regard to alcoholic strength)
- T.** **US.** $1/2\frac{1}{2}$; liqueurs $1/7/99$; **T.** All kinds $8\frac{1}{2}$ a v; **US.** Brandy, and other spirits and cordials $10/$ proof gallon; **USC.** Per kilo, brandy, rum, gin, whisky, &c., and the essences for making same, $1/8$; **Ur.** Cognac, anise, bitters, rum, whisky, absinthe, and other alcoholic beverages, and in casks up to 20° per litre 15 cts, in bottles 25 cts; liqueurs and syrups 26 cts per litre; **Ven.** Cane rum (importation prohibited) 3rd class, red Bordeaux wine, all wines except Spanish in pipes, kegs or barrels; 4th class, all wines except Spanish and Bordeaux in demijohns and bottles; 5th class liquors (sweet) not specified; 6th class Spanish w ne; 7th class brandy, gin, spirits of wine, and all liquors to 22° Cartier's scale.
- Starch,** per cwt.—**A.** Starch for textile dressers, under special conditions $1/6\frac{1}{2}$, other kinds $6/1$; **Ar.** Starch 5 cts per kilo, flour of wheat or maize 4 cts, vermicelli 7 cts; **B.** Free; **Cor.** $7\frac{1}{2}$ a v; **D.** Free; **E.** Per kilo $2/4$ d; **F.** $1/7\frac{1}{2}$; **G.** $6/5$; **Gr.** $6/5$; **HI.** Free; **H.** Free; **I.** Common $2/3/10\frac{1}{2}$, fine in boxes $4/10/52\frac{1}{2}$; **Nic.** As sago and maizena $2d$ per lb; **N.** $1/10\frac{1}{2}$; **Per.** 40%; **PR.** Per 100 kilos 2 pes 60 cts; **P.** $12/6$; **R.** $16/4$; **Rus.** 13 9; **S.** $3/8\frac{1}{2}$; **Sn.** $15/8$; **Sz.** 3d; **T.** $8\frac{1}{2}$ a v; **US.** Of potatoes or corn $9/4$, of rice or other materials 11 8; **Ur.** 2 w 7 cts. per kilo; **Ven.** Prohibited.

Stationery.—See Paper.

Steel and Steel Wares.—See Iron and Steel.

Stoneware.—See Earthenware.

Stoves.—See Iron and Steel.

Stockings.—See Woven Manufactures (Silk).

Straw Plaiting for Hats, per cwt.—**A.** 2/0½; **B.** Free; **D.** Of fine or coloured straw £7 10s 7d, of other straw £2 16s 6d; **F.** 2/0½; **G.** 12/2; **Gr.** £6 8s; **H.** Free; **I.** Plaits of straw, bark, esparto, &c., for hats 4/1½; of straw for ropes and other articles free; **N.** £2 12s 6d; **P.** £6 4s 8d; **R.** £1 12s 8d; **Rus.** Plain or mixed with cotton, hemp, silk or horse hair £17 6s 9d, painted straw 2/ with an addition of 20% on each rouble of duty leviable in each case; **S.** 12/3; **Sn.** £2 16s 6d; **Sz.** 4/0½; **T.** 8% a v; **US.** 20%.

Strings for Musical Instruments.—See Brass and Iron and Steel; also Copper.

Sugar, per cwt.—**A.** Beetroot and all kinds (raw), excepting not edible syrups

Ar. 11/2½, other, refined 4½d, unrefined 3½d; **Ar.** Per kilo, refined or unrefined 5 cts, sugar candies 300 and 30%, glucose 600 and 30%, all other

B. kinds 130 and 30%; **B.** Import duty, refined candy, 1st class

£1 4s 6d,* ditto 2nd class £1 2s 3d,* loaf £1 0s 9d,* above No.

18 Dutch standard free but chargeable with an excise duty equal to

the import duty on refined loaf sugar, raw, all kinds free but subject

to a surtax of 15% of the amount of the excise duty payable, molasses

containing less than 50% of saccharine matter 7/3½, ditto for distilla-

tion free,* excise duty on raw, from No. 15 to No. 18 inclusive 19/6,

from No. 10 to No. 15 18/3, from No. 7 to No. 10, 16/4, below No. 7

and molasses containing 50% or more of saccharine matter, also syrups

containing crystallisable sugar 13/11; **Br.** Candy 560 per kilo, raisin

or glucose 100 per kilo, any other kind 240 per kilo; **C.** Sugar of

Ch. all kinds 35% a v; **Ch.** Brown (No. 1 to No. 10 inclusive, Dutch

standard) 1,000 cattie 0'1'2'0, candy 0'2'5'0, white (No. 11 and up-

Cor. wards, Dutch standard) 0'2'0'0; **Cor.** Sugar and molasses 7½% a v;

D. D. Sugar, refined candy, lump or powdered, of No. 19 Dutch

standard and above, 12/4, additional duty 2/10, unrefined, except mus-

covado, from No. 15 to No. 18 Dutch standard 8/8, additional duty

2/7½, unrefined, from No. 10 to No. 14, and muscovado from No. 15

to No. 18 Dutch standard 8/3, additional duty 2/4½, unrefined

inferior to No. 10 and muscovado inferior to No. 15 Dutch

standard, also syrup 7/6, additional duty 2/1½, molasses 4/1, addi-

tional duty 1/3½; **E.** Per kilo 2½d molasses; **F.** Unrefined, moist sugar,

the estimated yield thereof at the refinery being 98% of refined sugar

or less 2/10½ net and £1 0s 4d per cwt. of refined sugar, more

than 98% £1 3s 7d, refined, other than candy £1 3s 7d, candy

£1 5s, molasses for distillation free, molasses other than for distilla-

tion, containing 50% of saccharine matter or less 6/1½, molasses other

than for distillation, containing more than 50% 13/; **G.** Sugar,

refined, candy or lump and unrefined of No. 19 Dutch standard

and above 15/3, unrefined below No. 19 Dutch standard 12/2,

syrup or molasses 7/7, molasses for use in distillation free; **Gr.**

Refined and glucose £1 3s 11d, unrefined and molasses 8/;

Hi. Hay. **H.** **Hi.** And molasses free; **Hay.** Per cwt refined 14/; **H.** Un-

refined (excise duty) of a saccharine richness of more than

98% £1 2s 10d, of a saccharine richness of not more than

98% for every percentage of its quality 2½d, treacle or molasses

containing 10% or less of solid sugar (import duty) 5/1,

refined (excise duty) candy, 1st class £1 7s, ditto 2nd class

I. £1 4s 6d, melis, lump and loaf £1 2s 10d; **I.** 1st class, superior

to Dutch standard No. 20 £1 11s 10'8'28d, 2nd class, inferior to Dutch

standard No. 20 £1 6s 6'211, molasses 4/0'768; **J.** White 75 cents

per 100 cattie, brown and black 40 cents; **Nic.** Sugar and

N. Molasses 1½d per lb; **N.** Sugar, all kinds £1 3s 2d syrup or molasses

Per. PR. P. 3/0½; **Per.** Sugar 70%, molasses 40%; **PR.** per 100 kilos, 9 pesos; **P.**

Per kilo, sugar refined on the Portuguese system, as well as sugar

superior to No. 20 Dutch standard† 135 r, sugar not otherwise classi-

fied† 110 r, molasses and honey 23 r; **R.** Raw and cassonades, in powder

4/10½, refined sugar candy and dissolved sugar 8/2, syrups and

Rus. molasses 2/5½; **Rus.** Sugar, raw, at ports of the Black Sea or

Sea of Azov 18/9, at other ports or by the land frontier 19/8, sugar,

* With an addition of 15% of the duty as surtax.

† The provision contained in the law of March 22, 1886, suspending until the year 1889 the law of December 27, 1870, is maintained in force.

Sugar—continued.

- refined in loaves, pieces or lump and sugar candy, at ports of the Black Sea or Sea of Azov £1 7s 7d, at other ports or by the land frontier £1 8s 7d, molasses 11/10; **Sal.** Per lb g w 3½d; **S.** Sugar of all kinds, import duty 12/6, transitory duty 5/6; **Sn.** Sn. Sugar unrefined, up to No. 18 Dutch standard 13/3, ditto No. 18 Dutch standard and above 18/8, refined, including candy, loaf and powdered sugar, 18/8, syrup or molasses 5/8; **Sz.** Sz. Unrefined sugar candy and glucose 3/0½, refined, in lumps and loaves 3/5½, in cubes and fine powder 4/0½, molasses and dark syrup 9½d; **T.** All kinds 8½ a v; **US.** All sugar not above No. 13 Dutch standard (testing by the polariscope not above 75 degrees) 6/6½, for every additional degree or fraction of a degree by the above test 2½d, above No. 13 and not above No. 16, 12/10, above No. 16 and not above No. 20, 14/, refined and all above No. 20, 16/4, sugar candy, not coloured £1 3s 4d, molasses (testing by the polariscope not above 56 degrees) 2½d per gallon (above 56 degrees) 4½d; **USC.** Ur. per kilo 2½d; **Ur.** Refined g w 5 cts per kilo, not refined g w 4 cts; **Ven.** Ven. Sugar and molasses prohibited.

Sulphate of Iron (Green Copperas).—See Copperas.

Sulphur (Flowers of).—See Brimstone.

Surgical Instruments.—See Iron and Steel.

Sweetmeats.—See Confectionery.

Swords.—See Iron and Steel.

Tallow.—See Grease.

Tapes.—See Woven Manufactures.

Tarpaulins and Tarpaulin Cloths.—See Woven Manufactures.

Tenders for Locomotives.—See Iron and Steel.

Terra Cotta.—See Earthenware and Porcelain.

Thread.—See Yarns.

Tiles.—See Earthenware and Porcelain.

Tin and Tin Wares, per cwt.—**A.** Tin, blocks, ingots and old broken tin free, bars, plates, sheets or wire, tubes and coarse castings plain or combined with wood or sheet or bar iron 4/0½, tin wares, common, as kettles, dishes, plates, &c., not lacquered and not combined with other materials 5/1, other tin wares 15/3; **B.** Tin, unmanufactured, all kinds free, tin wares 10½ a v; **Br.** Per kilo, tin, calaim (Indian tin), tutenag, prince's metal, and other alloys: in bars, rods, beads, ashes, or powder, in sheets, pieces or scrap, or in any other unmanufactured state 100 r, in jewellery of any description, plain, varnished, gilded, silver-plated, or in rosaries, or with false stones 4,000 r, in thin leaves for bottles, in capsules, and fastenings for the same, &c., 350 r, in tubes for stills, &c. 120 r. In plates: for engraving music 350 r, engraved or with inscriptions for letters, music, &c., plain or mounted on wood or stereotype plates 700 r, in weights or markers for scales 160. Articles not otherwise mentioned: plain 800 r, silvered or bronzed, wholly or in part 1,600 r, gilded, wholly or in part 2,400 r; **C.** In bars free; **Ch.** Tin 1'2'5'0 per 100 catties, tin plates 0'4'0'0; **Cor.** 7½ a v; **D.** In Tin ingots, bars, &c. free, sheets, pipes, kettles, pans, &c. 2/4½, tin wares, varnished, painted or lacquered £1 17s 8d, other kinds 18/10; **E.** Per kilo 2½d; **F.** Tin, pure, in ingots, bars or slabs, pure, filings and old broken articles free, alloyed with antimony (Britannia metal) in pigs 2/0½, pure or alloyed, hammered or rolled 2/5½, tin wares, pots, pans and other manufactures of tin, pure or alloyed with antimony 12/2; **G.** Tin, pure or alloyed with lead, antimony or zinc, raw or broken free, rolled 1/6½, tin wares, coarse, plain or in combination with wood, iron, lead or zinc, not polished or lacquered also wire, 3/0½, fine wares, plain or mixed with other materials (provided they cannot be classified under the head of small ornamental wares), also lacquered wares 12/2, small ornamental wares £5 1s 7d; **Gr.** Tin, unmanufactured, in ingots, bars, plates or sheets 6/4½, tin wares, household articles, &c. 12/9½, ditto gilt or silvered £1 12s; **Hi.** 10%; **Hay.** Double, per 100 sheets 8/4d, single 4/2; **H.** Tin, unmanufactured and foil, free, tin wares 5½ a v; **I.** Tin and its alloys with lead and antimony, ingots, cakes, bars and old tin free, hammered, in sheets or foil of any sort 5/11½, tin wares 7/11, varnished 15/10; **J.** Tin 3 boos per 100 catties, tin plates 70 cents per box of 90 catties; **M.** Per kilo, block tin in bars or in the rough g w 0'10, ditto in plates, sheets, and other manufactures, g w 0'20, tin in sheets up to 40 centimetres long by 30 wide, neither stamped nor painted, also tinned iron tubing free; **Nl.** Free;

Tin and Tin Wares—continued.

- Nic. N.** Nic. Per lb bars and plates 2d, manufactures 4d; **N.** Tin, in ingots, bars or sheets, also filings, tubes and pipes free, tin wares, gilt, silvered or plated £1 19s 6d, other kinds, including tinfoil 19/9;
- Per. PR.** Per. Tin 45%; **PR.** Per 100 kilos, in bars or bullion, sheets, nails, wire, and pipes 3 pesos 68 cts, manufactured 8 pesos 70 cts;
- P.** P. Tin, old broken articles, cast and hammered or rolled, alloyed for solder free, tin wares 11/9; **R.** Tin, unwrought in any form, filings, old broken articles, alloys of tin and antimony in pieces (Britannia metal), tin, pure and alloys, beaten or rolled, tin in sheets free, articles of tin, pure or combined with lead or zinc, and articles of Britannia metal neither gilt nor silvered £2 os 6d; **Rus.** Tin in ingots, rods and scrap 3 11/8,* in sheets and amalgam for mirrors 6/11,† tin wares, not polished nor painted 10/10,‡ polished or painted £1 7s 1d;† **Sal.** Bars and sheets per lb g w 6d, prepared for domestic, or other uses, ditto, ditto 7½d, painted or ornamental, per lb 9½d, baths, each, £1 10s 10½d, tin wares, plain or lacquered 6/9, ditto gilded, silvered or nicked 18/3; **Sn.** Tin, unwrought, also old or broken tin wares free, tin wares not lacquered nor painted 19/9, lacquered or painted £1 19s 6d, tin foil 19/9; **Sz.** Tin in rough pieces, blocks, bars or plates, filings and old broken articles 7½d, tin, pure or alloyed with other metals (Britannia metal), hammered or rolled, sheets or wire, tinfoil, 1/2½, tin wares not polished or painted 2/10½, ditto polished, painted or varnished and articles of Britannia metal 6/6; **T.** All kinds 8% a v, bassinets of tin with perforated sides, neither painted, polished, nor varnished 3/6 per cwt; **US.** Tin in blocks, pigs or bars free, ditto in plates, sheets andterne tin 4/8, tinfoil 45% a v, manufactures, articles or wares not otherwise provided for composed wholly or in part of tin 45%; **Ur.** Tin, sheets or ingots 20% a v; **Ven.** 3rd class, pure or alloyed, unmanufactured, and tinned basins, 4th class, manufactured, not specified, 6th class, eyelets, hooks and eyes.

Tin and Terne Plates.—See Iron and steel, also Tin and Tin Wares.

Tissues.—See Woven Manufactures.

- Tobaccos, Cigars and Snuff,** per cwt.—**A.*** Tobacco unmanufactured in leaves, stalks, and stems £1 1s 4d, ditto manufactured, stemmed, rolled, and cut tobacco for smoking, tobacco waste, chewing tobacco, cigars and cigarettes, snuff and tobacco for making snuff £2 13s 4d;
- Ar. B.** Ar. Tobacco, cigars, snuff of all sorts 50% a v; **B.** Unmanufactured leaves, ditto stalks £1 8s 3d, cigars and cigarettes £6 1s 11d, other manufactured tobacco £2 os 8d; **Br.** In cheroots 5'100 per 100, cigars 3'500 per kilo, leaves 520 per kilo, for chewing, &c. 1'100 per kilo, cut for pipes and cigars 1'400 per kilo, snuff 3'000 per kilo, prepared in any other manner 5'500 per kilo; **C.** Havana tobacco in leaves or cut in any form 1'50 pesos per kilo, any other kind 1 peso per kilo; **Ch.** Snuff, per 100 catties 7'2 0'0; cigars, including cigar cases, holders, and pipes, free, foreign tobacco free, leaf, 100 catties 0'1'5'0, prepared 0'4'5'0; **Cor.** Leaf 20% a v, cigars and cigarettes 20%; **D.** Leaves and stalks 11/9, additional tax 4/8½, cigars £3 15s 3d, additional tax 18/10, other kinds 18/10, additional tax 4/8½; **E.** Per kilo leaf, cigars and cigarettes 2/1; **F.** Tobaccos unmanufactured (leaf or stalk), for the Régie free, for private account prohibited, tobacco manufactured for the Régie free, for private account prohibited, tobacco juice (sauce prairs) prohibited. (NOTE.—Tobacco for personal use may be admitted under certain regulations to the extent of 10 kilos per individual per annum, at the following rates, cigars and cigarettes 13/1 per lb, Turkish tobacco 9/1 per cwt, other kinds and snuff 5/5.) **G.** Unmanufactured leaves and stalks £2 3s 2d per cwt, manufactured cigars and cigarettes £6 17s 2d, other kinds £4 11s 3d; **Gr.** In leaves £4 16s, cut in carrots or rolls £5 12s, cigars and cigarettes £9 12s, snuff £5 12s; **Hi.** Leaf free; cigars and cigarettes free; **Hay.** Per cwt, roll £2 6s 8d, leaf and chewing 18/8, snuff £4 13s 4d, cigars per 100 1'0½; **H.** In leaves and rolls unstemmed 7d, ditto stemmed 1/3½, snuff and other manufactures 10/2, cigars £1 13s 11d; **I.** Unmanufactured in leaves and stalks prohibited, cigars Havana or similar quality £71 2s 6d, other manufactured tobacco £40 12s 10d; **J.** 100 80 cents per 100

* Tobacco can only be imported into A. by special permission, and is subject to a licence duty in addition, on raw tobacco 6/4 per lb, on cigars and cigarettes 10/, on other manufactured tobacco 7/8.

Tobaccos, Cigars and Snuffs—continued.

- Nic.** cattie; **Nic.** Per lb Government monopoly, Havanna only (by special permit) 3/5 $\frac{1}{2}$, chewing (allowed) 1/8 $\frac{1}{2}$; **Ni.** Tobacco and snuff 8 fl. per 100 kilos, Manilla cigars 200 fl. per 100 kilos, other cigars and cigarettes 50 fl. per 100 kilos; **N.** Stalks, leaves, not steeped and steeped 4 18s 9 $\frac{1}{2}$ d, snuff 45 18 6 $\frac{1}{2}$ d, cigars and cigarettes 4 10 3s 2 $\frac{1}{2}$ d, all other manufactured tobacco 45 18s 6 $\frac{1}{2}$ d; **Per.** Leaf 70%; cigars and cigarettes 70%; **PR.** (Manufactured), all kinds, per kilo 70 cts; (unmanufactured) leaf, per kilo 35 cts; **P.** Cigars 15/6 per kilo, all other kinds 17/9 per kilo; **R.** Prohibited; **Rus.** In leaf or packets, with or without stalks 47 9s 4d, tobacco for smoking, snuff, cut, of every kind, twisted in rolls, cakes, &c. 426 2s 8d, cigars and cut tobacco rolled in tobacco leaves 463 9s 4d; **Sal.** Per lb g w leaf 9 $\frac{1}{2}$ d, cigars and cigarettes, 4 1s 7 $\frac{1}{2}$ d; **S.** Prohibited; **Sn.** Unmanufactured 42 16s 6d, manufactured cigars and cigarettes 48 9s 5d, other kinds 43 7s 9d; **Sz.** Tobacco unmanufactured in leaves, stalks, and waste 10/2, ditto carrots or rolls for manufacture of snuff 12/3, snuff 41 0s 4d, cigars and cigarettes 42 0s 8d, other manufactured tobacco 41 0s 4d; **T.** Prohibited; **US.** Leaf tobacco unstemmed, of requisite size and fineness for wrappers, and weighing more than 100 leaves to the lb 417 10s, excise duty in addition 41 17s 4d, other leaf tobacco unstemmed 48 3s 4d, leaf tobacco of requisite size and fineness for wrappers and weighing more than 100 leaves to the lb, stemmed 423 6s 8d, excise duty in addition 41 17s 4d, other leaf tobacco, stemmed 49 6s 8d, excise duty in addition 41 17 4d, tobacco stems 43 10s, cigars and cigarettes 458 6s 8d, and 25% a v, excise duty in addition, on cigars and cheroots and on cigarettes weighing 3lb per thousand 12/6, per mille on cigarettes weighing less than 3lb per thousand 2/1, per mille snuff and snuff flour scented or not 411 13s 4d per cwt, excise duty in addition 41 17 4d, unmanufactured tobacco not otherwise specified **USC.** 49 6s 8d, excise duty in addition 41 17s 4d; **USC.** Per kilo, in leaves or cut for cigarettes, 2 $\frac{1}{2}$ d, prepared for chewing 1/3, manufactured 2/6; **Ur.** Snuff 51% a v, tobacco from 18 cts to 35 cts per kilo, cigarettes from 60 cts to 1'60 cts, cigars from 56 cts to 2'80 cts; **Ven.** **Ven.** Chewing prohibited, 4th class cigarette and prepared for cigars, 7th class leaf and manufactured cigarettes, 8th class manufactured, not specified.

Tobacco Pipes.—See Earthenware and Porcelain.

Tools (Awls, Gimlets, Files, Saws, Vices, &c.)—See Iron and Steel.

Towels.—See Woven Manufactures.

Toys, per cwt.—**A.** Of wood, most common, planed, carved or turned free, ditto fine, also in combination with other materials 41 0s 4d, of iron or steel 15/3, combined with silk, lace, artificial flowers and ornamental feathers 45 1s 7d, ditto other woven or knitted materials 42 10s 10d; **B.** 10% a v; **D.** 41 17s 8d; **F.** 41 4s 5d; **G.** As materials of which made; **Gr.** 43; **H.** 5% a v; **I.** 23/9; **N.** All kinds 41 13s 11d; **P.** 42 7s 1d; **R.** Toys of wood, common metals, earthenware, porcelain, glass, paper, leather or caoutchouc with or without admixture of other common materials and all toys for children, with the exception of those composed or partly composed of ivory, tortoise-shell, mother-of-pearl, or precious metals 42 0s 8d; **Rus.** 47 5s 10d; **S.** 42 12s 9d; **Sn.** Of wood or mixed material 44 4s 8d. (**NOTE.**—Other kinds of toys pay as the materials of which made.) **Sz.** 6/6; **T.** 8% a v; **US.** 35% a v.

Tramway Carriages.—See Carriages.

Tricycles.—See Carriages.

Tulle.—See Woven Manufactures.

Turpentine, per cwt.—**A.** 1/6 $\frac{1}{2}$; **B.** Free; **D.** 4/8 $\frac{1}{2}$; **F.** Essence of turpentine 2/0 $\frac{1}{2}$; **G.** Free; **Gr.** 9/7 $\frac{1}{2}$; **H.** Free; **I.** Free; **N.** Oil of turpentine 3/9 $\frac{1}{2}$; **P.** 1/3; **R.** 4/1, other kinds 1/7 $\frac{1}{2}$; **Rus.** 3/3; **S.** 4/0 $\frac{1}{2}$; **Sn.** 3/11 $\frac{1}{2}$; **Sz.** Not specified; **T.** 8% a v; **US.** 1/ per gallon.

Twine.—See Cordage.

Umbrellas and Parasols.—**A.** Of silk 11 $\frac{1}{2}$ d each, other kinds 3 $\frac{1}{2}$ d; **B.** Umbrellas and parasols 10% a v, Parts thereof 5%; **Br.** Umbrellas and parasols of silk 2'00 each and 30% a v; **C.** Ditto of all kinds 35% a v; **Ch.** 0'03'35 each; **Cor.** Paper 5% a v, foreign 10% a v; **D.** Covered with silk or half silk 1/5 $\frac{1}{2}$ each, ditto with other materials or uncovered 6 $\frac{1}{2}$ d; **F.** Cotton 2 $\frac{1}{2}$ d, alpaca 4 $\frac{1}{2}$ d, silk 1/; **G.** 43 0s 11d per cwt; **Gr.** Of wool or of linen or cotton or of linen mixed with cotton 3 $\frac{1}{2}$ d each, ditto mixed with silk 1/2 $\frac{1}{2}$ d, ditto of silk 2/5, ditto ornamented with lace

R.

Umbrellas and Parasols—continued.

or embroidery 25% a v, frames and sticks of wood or common metal 16/ per cwt. (NOTE.—Frames and sticks of other kinds are chargeable with the duties upon the materials of which made.) **Hay.** Sunshades, parasols of every size and shape, each 2/6, ditto, ditto, for children 10d, woollen stuff, each, 1/3, cotton, each, 9d; **H.** 5% a v; **I.** Of silk 1/12 2/4 each, of other materials 7/6 8d each, parts thereof 12/2 per cwt; **Nic.** Per lb cotton 10d, silk and other 1/8 1/4 d; **N.** Of silk or half silk 10d each, of other materials 3 1/4 d, framework not covered 19/9 per cwt; **PR.** Per dozen, umbrellas and parasols, cotton 1 peso 74 cts, silk and other 6 pesos 96 cts; **P.** Umbrellas and sunshades, covered with silk, 535 r each, ditto, covered with other stuffs 320 r each, frames, complete, for umbrellas or sunshades, without covers 320 r each, ditto, incomplete, for umbrellas or sunshades, in separate pieces 1'300 r per kilo; **R.** Of cotton, linen or wool with frames of whalebone or iron with handles of plain or carved wood, combined or not with bone or common metals, gilt, silvered or not 1/8 each, of silk, pure or mixed, of cotton, linen or wool, lined with silk pure or mixed 3/8; **Rus.** Men's umbrellas of silk, and ladies' silk umbrellas or parasols lined with silk 5/3, † men's alpaca umbrellas and ladies' unlined silk umbrellas, &c. 2/1, † other kinds of umbrellas or parasols £1 7s 1d per cwt; **Sal.** 36in per dozen 10/11, 20in 7/9 1/2; **S.** Of silk 1/ each, of other materials 7d; **Sn.** Of silk or half silk 10d, other kinds 3 1/4 d, parts thereof, framework, &c. 19/9 per cwt, ditto coverings of umbrellas, cut or sewn and cases of umbrellas as material of which made with an addition of 20%; **Sz.** Of cotton 6/6 per cwt, of silk 12/2, of linen or wool £1 0s 4d; **T.** 8% a v; **US.** Of silk or alpaca 50% a v; of other materials 40%, ribs, frames, handles, &c., chiefly of metal 40%, frames and sticks, other kinds 30%; **USC.** Per kilo, 3/4.

Varnish.—See Grease.

Velocipedes.—See Carriages, also Iron and Steel.

Velvet and Velveteens.—See Woven Manufactures.

Vinegar.—**A.** In casks 3/0 1/2 per cwt, in bottles 8/2; **B.** In casks 2 1/4 d per gallon, in bottles 3d; **Br.** Common '100 per litre, for preserving '360 per kilo (in casks); **C.** Conserves in vinegar, sauces 35% a v; **D.** In casks 1/9 1/2 per cwt, gross, in bottles 6 1/4 d per gallon; **F.** Import 3d per gallon, excise duty in addition, vinegar containing up to 8% of acetic acid 2 1/4 d per gallon, from 9% to 12% 3 1/4 d, from 13% to 16% 4 1/4 d, acetic acid and vinegar containing from 17% to 30% 8 1/4 d, from 31% to 40% 11d, more than 40% 1/11; **G.** In casks 4/0 1/2 per cwt in flasks or bottles £1 4s 5d; **Gr.** Common 6/4 1/2, other, in bottles £1 12s; **H.** Of two degrees strength or less, as ascertained by Dutch standard, scale B 2 1/4 d per gallon, other kinds 1/6 1/2; **I.** Containing 10% or less of acetic acid 4/0 7/6 8d, 10% to 50% 24/4 608, above 50%, 35/6 9/12; **Nic.** Per lb 3d; **N.** In casks containing up to 10% of acid 9/0 1/2 per cwt, ditto over 10% ditto £4 10s 4d, in bottles containing up to 10% of acid 10 1/4 d per gallon, ditto over 10% ditto 8/1; **Nl.** 10% a v; **PR.** Per hecto 1 p 25 c; **P.** 218 r per decal; **R.** In casks 8 1/4 d per cwt, in bottles 16/4; **Rus.** In casks 10/10 per cwt gross, † in bottles 4 1/4 d † per bottle; **Sal.** Per lb acetic acid 3 1/4 d; **S.** 4/0 1/2 per cwt; **Sn.** Containing up to 10% of acetic acid 11/4 (1/1 1/2 per cwt for each degree above 10); **Sz.** 1/10; **T.** 8% a v; **Ur.** 0/3 per litre; **US.** 4 1/4 d per gallon; **USC.** Per kilo, vinegar in barrels 2 1/4 d.

Wagons.—See Carriages.

Wagon Covers.—See Woven Manufactures.

Wagon Grease.—See Grease.

Watches.—See Clocks and Watches.

White Lead.—See Lead and Lead Wares.

Wicks for Candles.—See Woven Manufactures.

Window Glass.—See Glass and Glass Wares.

Wire.—See Brass and Copper, Gold and Silver Wares, Iron and Steel, Zinc.

Wire Gauze.—See Iron and Steel.

Wire Ropes.—See Iron and Steel.

Woollen and Worsted, Yarns and Thread.—See Yarns (Woollen and Worsted).

Woollen and Worsted, Woven Manufactures.—See Woven Manufactures (Woollen and Worsted).

Woven Manufactures, Cotton, per cwt.—**A.** Cotton manufactures, pure or mixed with linen, (a) common, *i.e.* tissues for yarns No. 50 and under, (1) plain or simply twilled of 38 threads or less to 5 millimetres square, unbleached £1 12s 6d, bleached £2 0s 8d, dyed (except Turkey

Woven Manufactures—continued.

- red) £2 10s 10d, woven in many colours, printed or dyed Turkey red £3 0s 11d, (2) figured of 38 threads or less to 5 millimetres square, unbleached £2 0s 8d, bleached or dyed (except Turkey red) £2 10s 10d, woven in many colours, printed or dyed Turkey red £3 11s 1d, (3) close woven plain or figured of more than 38 threads to 5 millimetres square, unbleached £2 10s 10d, bleached or dyed (except Turkey red) £3 0s 11d, woven in many colours printed or dyed Turkey red £4 1s 3d, (b) fine, *i.e.* tissues from yarns over No. 50 and up to 100 inclusive plain or figured, unbleached, £3 11s 1d, bleached, coloured woven in many colours or printed £5 1s 7d, (c) finest, *i.e.* tissues from yarns over 100 plain or figured, also tulle bobbinet and pettinent (such as curtain stuffs and furniture covers) and tissues mixed with metal or glass threads £8 2s 6d, (d) lace and embroidered wares £10 3s 2d, (e) velvet or velvet-like tissues with or without cut pile, hosiery, haberdashery, &c. £4 1s 3d, (f) woven wicks, girths, hose, nets, &c. £1 4s 5d, (g) ready-made clothing, as material of which chiefly composed, with an addition of 40%;
- B.** Cotton tissues unbleached, plain, twilled and ticks, 1st class, weighing 20½ lbs or more to the 100 square yards of 35 threads and less to the 5 square millimetres £1 0s 4d, of 36 threads and above £1 9s 3d, 2nd class, weighing from 12 9 10th lbs to 20½ lbs to the 100 square yards of 35 threads and less to the 5 square millimetres £1 4s 5d, of 36 to 43 threads £2 0s 8d, of 44 threads and above £3 1s 2d, 3rd class, weighing from 5½ to 12 9 10th lbs to the 100 square yards of 27 threads and less to the 5 square millimetres £1 12s 6d, of 28 to 35 threads £2 8s 9d, of 36 to 43 threads £3 17s 3d, of 44 threads and above, £6 1s 11d, cotton tissues, bleached 15% above the duty on unbleached, ditto printed 15% a v, cotton velvets, made as silk velvets, unbleached £1 14s 7d, dyed or printed £2 4s 8d, other kinds, cords, moleskins, &c., unbleached £1 4s 5d, dyed or printed £1 14s 7d, quiltings, dimities, stripes, checks, damasks and brilliants weighing 5½ lbs to the 100 square yards, 15% a v, clothing and other ready-made articles 10%, hosiery, haberdashery, tapes and ribbons 10%, lace made by hand and on bobbins, free, other lace and blonde 10%, all other tissues and wares, 10%, cotton tissues mixed with silk, if the cotton predominates in weight 10%, or at the option of the importer £6 1s 11d per cwt, ditto mixed with other materials, if the cotton predominates in weight 10% a v; **Br.** Tarlatan, grenadine, if 100 sq. m. weigh 4 kilo or less 8'000 per kilo, above 4'000, velvets, velveteen, and bombazine 2'500, jaconnet, cambric, white and coloured '800 and 30%, calicoes, batiste, satins, white, dyed, printed 1'200 and 30%, tulle, less 10'000, above 4'000, sail-cloth '625, floorcloth '900 per kilo, lace (Valencien) 10'000, all other 4'000 and 30%, shirts 3'000 to 13'600 per doz, veils 48% a v; cotton flannels '300, bareges 2'000, cotton shawls or handkerchiefs '600, shirtings '620, hosiery '504 per doz; **Ch.** Clothing 100 catties 1'5'0'0, ditto foreign free; cotton piece goods, grey, white, plain, twilled, exceeding 34in wide and not exceeding 40yds long, per piece 0'0'8'0, over 34in wide and exceeding 24yds long, every 10yds 0'0'2'0, drills and jeans not exceeding 30in wide and 40yds long, per piece 0'1'0'0, not exceeding 30in wide and 30yds long, per piece 0'0'7'5, T-cloth, not exceeding 34in wide and 48yds long, per piece 0'0'8'0, not exceeding 34in wide and 24yds long, per piece 0'0'4'0, cotton, dyed, figured and plain, not exceeding 36in wide and 40yds long per piece 0'1'5'0, fancy white brocades and white spotted shirting 3'1'0'0, printed chintzes and furnishings, not exceeding 31in wide and 30yds long 0'0'7'0, cambries not exceeding 46in wide and 24yds long 0'0'7'0, ditto 46in wide and 12yds long 0'0'3'5, muslins 46-24 0'0'7'5, 46-12 0'0'3'5, damasks 36-40 0'2'0'0, dimities or quiltings, 40-12 0'0'6'5, ginghams 28-30 0'0'3'5, handkerchiefs, not exceeding 1yd square, per doz 0'0'2'5, fustians, not exceeding 35yds long, per piece 0'2'0'0, velveteens, not exceeding 34yds long 0'1'5'0; rags 0'0'4'5 per 100 catties; **Cor.** 8% a v; **D.** Cotton tissues, unbleached, containing less than 24 threads to the square half-inch, or weighing 7½ oz avoirdupois or above to 4½ square feet 4'8½ per cwt, other kinds 14/1, sail cloth and tarpaulin cloth weighing 7½ oz avoirdupois and above, per 4½ square feet, also druggeting (so far as such cloths are not included above) 14/1, marly, embroidery cloth, canvas, stiff nets and other open-woven gummed or stiffened wares, girths,

Woven Manufactures—continued.

- bands and tapes and fish nets $\mathcal{L}1\ 17s\ 8d$, open and transparent tissues, combined or not with metal threads or spun glass, crochet, lace, fringes, trimmings and buttonmakers' wares $\mathcal{L}5\ 12s\ 11d$, other kinds printed wares, knitted wares, hosiery and velvet stuffs $\mathcal{L}3\ 15s\ 3d$, dyed in colours, not printed $\mathcal{L}2\ 16s\ 6d$, of one colour, also damask, drills, &c., undyed $\mathcal{L}2\ 7s\ 1d$, undyed plain tissues, also wadding $\mathcal{L}1\ 8s\ 3d$, ready-made clothing when not lined or trimmed or when the lining or trimming is not liable to a higher duty than the material of which made, as the material of which chiefly composed, with an addition of 50%, when the lining or trimming is liable to a higher duty than the material of which made, as the material of which chiefly composed with an addition of 100%; E. Per kilo, raw $2\frac{1}{2}d$, manufactured $1\frac{1}{2}d$;
- F. Cotton tissues, plain, twilled and ticks, unbleached, 1st class, weighing $20\frac{1}{2}$ lb to the 100 square yards of 30 threads and less to the 5 square millimetres $\mathcal{L}1\ 0s\ 4d$, of 31 threads and above $\mathcal{L}1\ 9s\ 3d$, 2nd class, weighing from 12 9-10th to $20\frac{1}{2}$ lb to the 100 square yards of 35 threads and less to the 5 square millimetres $\mathcal{L}1\ 4s\ 5d$, of 36 to 43 threads $\mathcal{L}2\ 0s\ 8d$, of 44 threads and above $\mathcal{L}3\ 13s\ 2d$, 3rd class, weighing from $9\frac{1}{2}$ to 12 9-10th lbs to the 100 square yards of 27 threads and less to the 5 square millimetres $\mathcal{L}1\ 12s\ 6d$, of 28 to 35 threads $\mathcal{L}2\ 7s\ 6d$, of 36 to 43 threads $\mathcal{L}3\ 17s\ 3d$, of 44 threads and above $\mathcal{L}4\ 18s\ 4d$, 4th class, weighing from $5\frac{1}{2}$ to $9\frac{1}{2}$ lbs to the 100 square yards of 20 threads or less to the 5 square millimetres $\mathcal{L}2\ 4s\ 8d$, of 21 to 27 threads $\mathcal{L}3\ 0s\ 2d$, of 28 to 35 threads $\mathcal{L}3\ 18s\ 5d$, of 36 to 43 threads $\mathcal{L}5\ 9s\ 9d$, of 44 threads and above $\mathcal{L}8\ 3s\ 9d$, 5th class, weighing less than $5\frac{1}{2}$ lbs to the 100 square yards $\mathcal{L}10\ 19s\ 6d$, tissues, bleached 15% above the duty on unbleached, ditto dyed $10\frac{1}{2}$ per cwt above the duty on unbleached, tissues, printed, duties on unbleached tissues according to class, with the following additional duties, of 1 or 2 colours $1\frac{1}{4}$ per 100 square yards, of from 3 to 6 colours $2\frac{1}{8}$ ditto, of 7 colours or more $5s$ ditto, cotton velvets and fustians made as silk velvets, unbleached $\mathcal{L}2\ 6s\ 9d$ dyed or printed $\mathcal{L}2\ 16s\ 11d$, other kinds, cords, moleskins, &c., unbleached $\mathcal{L}1\ 12s\ 6d$, dyed or printed $\mathcal{L}2\ 2s\ 8d$, woven fabrics composed wholly or in part of dyed threads pay as unbleached with an addition of $16\frac{2}{3}$ per cwt, brilliants or figured wares, unbleached, bleached or dyed pay as plain tissues according to class with 10% additional, piqués and counterpanes, quilted or reps, unbleached, weighing more than $33\frac{1}{2}$ lbs to the 100 square yards $\mathcal{L}2\ 0s\ 8d$, unbleached, weighing $33\frac{1}{2}$ lbs and less to the 100 square yards $\mathcal{L}2\ 18s\ 11d$, bleached, weighing more than $33\frac{1}{2}$ lbs to the 100 square yards $\mathcal{L}2\ 6s\ 9d$, bleached, weighing $33\frac{1}{2}$ lbs and less to the 100 square yards $\mathcal{L}3\ 7s\ 9d$, dyed, weighing more than $33\frac{1}{2}$ lbs to the 100 square yards $\mathcal{L}2\ 10s\ 10d$, dyed, weighing $33\frac{1}{2}$ lbs and less to the 100 square yards $\mathcal{L}3\ 9s\ 1d$, dimity, damask and table linen, unbleached $\mathcal{L}1\ 13s\ 4d$, bleached $\mathcal{L}1\ 18s\ 4d$, dyed $\mathcal{L}2\ 3s\ 6d$, guipures for furniture, unbleached $\mathcal{L}2\ 8s\ 9d$, bleached $\mathcal{L}2\ 16s\ 1d$, dyed $\mathcal{L}2\ 18s\ 11d$, counterpanes and blankets $\mathcal{L}1\ 2s\ 4d$, hosiery of cotton, gloves $\mathcal{L}12\ 3s\ 10d$, other kinds, cut out, but without seams $\mathcal{L}1\ 16s\ 7d$, shaped or with the foot shaped $\mathcal{L}4\ 11s\ 5d$, fringe-makers' wares $\mathcal{L}3\ 17s\ 3d$, tapes and ribbons $\mathcal{L}2\ 0s\ 8d$, bobbin net (tulle) coarse, less than 7 meshes to the square centimetre, $\mathcal{L}8\ 2s\ 7d$, fine, 7 meshes or more to the square centimetre, $\mathcal{L}11\ 8s\ 5d$, plumetis and fancy gauzes, lace and blonde, manufactured by machinery or by hand $\mathcal{L}8\ 2s\ 7d$, curtains of muslin embroidered, not bordered, weighing less than $18\frac{1}{2}$ lbs to the 100 square yards, $\mathcal{L}2\ 16s\ 10d$, weighing $18\frac{1}{2}$ lbs or more and curtains of muslin embroidered, bordered, of whatever weight to the 100 square yards, whether cut or in the piece $\mathcal{L}5\ 13s\ 9d$, of tulle application or of grenadine or with tulle embroidered $\mathcal{L}13\ 4s\ 2d$, muslins, embroidered or figured for furniture hangings or clothes and lappets, unbleached $\mathcal{L}3\ 13s\ 2d$, bleached $\mathcal{L}4\ 4s\ 1d$, embroidery, hand or machine made $\mathcal{L}9\ 2s\ 11d$, wicks for lamps and plaited wicks for candles $\mathcal{L}1\ 4s\ 5d$, oilcloth for packing $2\frac{1}{2}d$, for furniture or other similar uses $6\frac{1}{2}$, of moleskin leather $10\frac{1}{2}$, mixed tissues of cotton and other materials, cotton predominating, piece goods of silk (or floss silk) and cotton $\mathcal{L}6\ 1s\ 11d$, other piece goods $\mathcal{L}2\ 0s\ 8d$, tapes or ribbons of cotton and wool $\mathcal{L}2\ 8s\ 9d$, ditto of silk and cotton $\mathcal{L}6\ 1s\ 11d$, other kinds pay as tissues of pure cotton, ready-made clothing and articles wholly or partly made up, 10% above highest rate chargeable on material of which composed; Q. Tissues of

Woven Manufactures—*continued*.

cotton, pure or mixed with metal threads but not with wool or silk, (1) fishing nets $1/6\frac{1}{2}$ per cwt, (2) very coarse textures made from unbleached yarn of cotton waste, in pieces not above 50 centimetres long, as grey packing cloth, press cloths, &c., also in combination with other weaving materials or with a few coloured threads $5/1$, (3) unbleached, close-woven wares, except velvet, also tulle, unbleached and unfigured $\mathcal{L}2$ os 8d, (4) bleached, close-woven wares, dressed or not, except velvet $\mathcal{L}2$ 10s 10d, (5) velvet and all close-woven wares not included under 3, 4, and 9 $\mathcal{L}3$ os 11d, (6) unbleached, open-woven wares (except curtains not included under 3, hosiery, fringe and buttonmakers' wares, also tissues in combination with metal threads $\mathcal{L}3$ os 11d, (7) curtain stuffs bleached and dressed $\mathcal{L}5$ 26s 10d, (8) all open-woven wares, such as faconet, muslin, tulle, marly, gauze, so far as they are not included under Nos. 3, 6, 7, $\mathcal{L}5$ 1s 7d, (9) lace and embroidered wares $\mathcal{L}8$ 17s 10d, (10) ready-made clothing, under-linen $\mathcal{L}3$ 16s 2d, other kinds $\mathcal{L}7$ 12s 5d ; **Gr.** Cotton tissues unbleached, not classified, containing in the warp and woof per 5-1000th square metre, not exceeding 36 threads $\mathcal{L}1$ 5s 7d, ditto 44 threads $\mathcal{L}1$ 10s 9d, ditto 56 threads $\mathcal{L}1$ 15s 10d, bleached, not classified, an increase of 40% on the duty levied for the unbleached as above, dyed and printed goods not classified an increase of 80% on the duty leviable on cotton tissues unbleached, lamp wicks and boot laces $\mathcal{L}1$ 12s, tissues of fine make, transparent, viz. batistes, gauzes, muslins, grenadines, tulles, dentelles, head-kerchiefs (kalemkaria) and any embroidered goods (with the exception of ready-made clothes) $\mathcal{L}9$ 12s, velvet stuffs, garters, tapes, ribbons, laces, cords, edgings and haberdashery, lappets, sancoulis (muslin), Spanish calicoes, pompadour and cretonne, calicoes exceeding 56 threads, underclothing, headbands (trembez) and remnants of cotton tissues $\mathcal{L}4$ 16s, sail cloth $6/5$, ready-made clothes for men and boys are subject to the duty upon the tissue of which made with the addition of 50%, ready-made dresses for women and girls, without deduction for tare, and with or without embroidery or lace $\mathcal{L}24$; **Hi.** Free ; **Hay.** Per ell, cotton prohibited, manufactures, bleached or unbleached cloth from $1/4$ d to $1/2$ d according to width, fine, under 30in 2d, prints $1/4$ d and 2d, drills and ducks, mixed linen and cotton, up to 30in $3/4$ d, ordinary 3d, pure cotton 2d, ordinary $1/4$ d, denims, blue, from $1/4$ d to $1/2$ d, according to width, pantaloons stuffs 2d, sheeting 5d, ribbons or tape, per dozen ells 1d, stockings, per dozen pairs $1/8$, shawls, per dozen 4/2, towels, coloured border, per dozen $1/8$, common, per dozen 10d, table-cloth, per ell 4d ; **H.** Manufactures of all kinds 5% a v. (**NOTE.**—Unbleached cloth to be printed or dyed in Holland, may be admitted free under special regulations.) **I.** Cotton tissues

Gr.

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figured, embossed and damasked $8/1\frac{1}{2}$ additional to duty on unfigured, brocaded $16/3$ additional to duty on tissues, embroidered in chainstitch $\mathcal{L}4$ 1s 3d per cwt additional, embroidered in lockstitch $\mathcal{L}6$ 1s 11d per cwt additional to duty on tissue, tulle, unbleached $\mathcal{L}8$ 2s 7d, bleached or dyed $\mathcal{L}9$ 2s 11d ; gauze and muslin, unbleached $\mathcal{L}4$ 1s 3d, bleached $\mathcal{L}4$ 17s 6d, dyed $\mathcal{L}4$ 15s 5d, printed $\mathcal{L}6$ 10s, figured $8/1\frac{1}{2}$ additional to those not figured, brocaded $16/3$ additional to duty on tissue, embroidered in chainstitch $\mathcal{L}4$ 1s 3d additional to duty on tissue, embroidered in lockstitch $\mathcal{L}6$ 1s 11d additional to duty on tissue ; oil tissues, oil cloth, &c., floor cloth, tarred tissues $12/2\frac{1}{2}$, oil cloth $\mathcal{L}1$ 4s $4\frac{1}{2}$ d, emery cloth half duty on tissue without emery buttons $\mathcal{L}3$ os 11d ; hosiery and knitted goods, plain $\mathcal{L}3$ os 11d, shaped $\mathcal{L}4$ 11s 5d ; braids $\mathcal{L}3$ os 11d ; galloons, tapes, and ribbons $\mathcal{L}2$ 8s 9d ; lace $\mathcal{L}14$ 4s $6\frac{1}{2}$ d ; cotton velvets, common and plushes, unbleached $\mathcal{L}2$ 8s 9d, bleached $\mathcal{L}2$ 16s 10d, dyed $\mathcal{L}3$ 7s 0d, printed $\mathcal{L}4$ 9s $4\frac{1}{2}$ d, fine—unbleached $\mathcal{L}2$ 16s 10d, bleached $\mathcal{L}3$ 9s 1d, dyed $\mathcal{L}4$ 1s 3d, printed $\mathcal{L}5$ 1s 6d ; mixed tissues, with less than 12% silk, according to quality of tissue with $16/3$ per cwt additional ; with less than 50% silk, according to quality of tissue with $4/0\frac{1}{2}$ additional, with metallic threads of gold, silver, gilt, or silvered, $2/0\frac{1}{2}$ per cwt additional to duty on tissue ; of common metal 9d additional to duty on tissue ; ready made articles, sacks, bed and table linen, towels, taped curtains, and the like according to quality of tissue with 10% additional ; collars, cuffs, and men's shirts, twice the duty on their respective tissues ; other articles 40% additional to duty on respective tissues ; when the made up articles cannot be classed on the basis of weight to superficies and of the threads contained in a square

Woven Manufactures—continued.

of 5 millimetres, they are subject to the highest duty of the class to which they belong; in the case of mixed tissues, the duty on the tissue which predominates in weight or, when the weight of both tissues is equal, the duty of the most highly taxed material is payable; cotton tissues unbleached, weighing 13 kilogrammes and upwards per 100 square metres and having in warp and wool in the square of 5 millimetres 27 elementary threads or less £1 5s 2d, more than 27 threads £1 10s 1d, weighing from 7 to 13 kilogrammes per 100 square metres and having in warp and wool in the square of 5 millimetres 27 elementary threads or less £1 17s 1½d, more than 27 threads £2 0s 8d, weighing less than 7 kilogrammes per 100 square metres and having in warp and wool in the square of 5 millimetres 27 elementary threads or less £2 4s 8½d, more than 27 threads £2 12s 6d, bleached 20% above the duty on unbleached, dyed or woven in colours 14/3 above the duty on unbleached, printed, £1 10s 6d above the duty on unbleached, small shawls of carded wool mixed with silk £6, ¾ extra if sewn

- M.** Per kilo, cotton tissues, articles of cotton fabric of all kinds, not embroidered and not otherwise distinguished 1'60 (l w), ditto embroidered with any material other than silver or gold 2'25, cotton lace and netting of all kinds, and all manufactures of these materials, even though ornamented with silk or any metal other than silver or gold 6'00, ruching of cotton muslin, with or without cotton lace and small silk ornaments 4'30, cotton yarn of all kinds and colours (n w) 0'90, cotton thread of all kinds and colours, including the cotton thread called "crochet" (l w) 1'20, shawl handkerchiefs or shawls, large or small, of cotton of all kinds other than net, with or without fringe or embroidery of cotton or wool (n w) 1'20, ditto, with or without embroidery of wool or cotton, and with fringe of silk and wool or silk and cotton (n w) 2'50, elastic web of cotton and indiarubber more than 4 centimetres wide (g w) 0'60, clothing of cotton stuff ready cut in pieces for dressings of all kinds, except that elsewhere specified (n w) 1'70, cotton tissues, unbleached or white of all kinds, plain, not exceeding 30 threads in a half-centimetre square 0'90 sq m, ditto of more than 30 threads 0'11, ditto, printed, dyed or stamped, of all kinds not exceeding 30 threads, &c. 0'12, ditto, exceeding 30 threads 0'15;

- Nic.** Per lb, raw, with or without seeds 1d, canvas for worsted 3d, grey or brown cloth, unbleached 2/6, cosin, denims, sail cloth 5½d, damasks, blankets, rugs, towels, all brocaded, weft, bleached, cotton cloth (white goods), shirting, sheeting, drillings, pique, satin for men's wear, ginghams, zephyrs, and the like, cotton bags 6½d, ribbons and tapes, all kinds 8½d, beaverteen and moleskin 9½d, satins, brocaded stuff for ladies' wear 10½d, hose and the like, all kinds 10½d, prints, common, fine, linings and badanas 8½d, italian cloth, gambroons for ladies, lawns, book muslins, plain, embroidered, white or coloured, muslin, printed, white, coloured or brocaded 1/0½, handkerchiefs, embroidered, all kinds, shirts, undershirts, breasts, collars, cuffs, pantaloons, coats, vests, drawers, white or coloured, plain or trimmed, for men or women, corsets, cotton plush, velveteen, and the like, belts, suspenders, &c. 1/2½, shirts with linen breast and fronts, also common trimming braid 1/8½, fringes, tulle, ladies' patterns in cuts, curtain nets, and all sorts of trimming 2/0½, laces, embroidery, edging 2/7; **N.** Manufactures of pure cotton, sail cloth and other unbleached and undyed cloth weighing 6'3 oz to 2'7 square feet 3/11½, cloth bleached printed, dyed or woven of dyed yarn weighing 3'5 oz to 2'7 square feet 15/3, ribbons or tapes, also ribbons and tissues mixed with india-rubber or gutta percha and waistbands of the same £3 2s 1d, drill and damask also handkerchiefs not otherwise specified £1 13s 11d, knitted wares, dyed or not £3 2s 1d other cotton tissues, blonde, bobbinet, lace and tulle £7 1s 2d, other open or transparent tissues £4 19s 4d, close-woven printed £3 2s 1d, ditto dyed, of various colours, not printed £1 9s 11d, ditto of one colour, even if applied by printing or rolling, also bleached 15/3, ditto unbleached 7/4, trimmings, buttons, fringes, &c. £3 16s 3d, ready-made clothing as the predominating material of which made with an addition of 10%.

(NOTE.—Manufactures of cotton mixed with flax, hemp or other vegetable fibres pay as cottons, and those of cotton mixed with silk, or of cotton mixed with wool, as manufactures of silk and wool respectively.) **Per.** Cotton 40%, manufactures of, 40% a v; **PR.** Per kilo, textiles, closely woven, smooth, brown, white or coloured, 2s

Per. PR.

Woven Manufactures—continued.

- madapollams, calico, croydon, domestics, and like goods up to 10 threads 14 cts, from 11 to 16 threads 20 cts, 17 to 21 threads 27 cts, 22 threads and upwards 43 cts, textiles, closely woven, smooth, printed, as regencies, chintz, and similar goods, up to 13 threads 23 cts, 14 to 17 threads 29 cts, 18 to 21 threads 49 cts, 22 threads and upwards 75 cts, textiles, transparent or light, smooth, plain or worked, white, coloured or printed, as muslin gauze, lawn, jaconet, organdies, poplins, victorias, cambrics and like goods, up to 12 threads 34 cts, 13 to 17 threads 43 cts, 18 to 23 threads 58 cts, 24 threads and upwards 95 cts, textiles, twilled, white, brown or coloured, as bed ticking, canvas, domestics, madapollams, towelling, and like goods 20 cts, textiles, twilled, superior to the preceding, and those printed, flowered, as germanic, drills, pique, damask, and like goods 56 cts, quiltings, blankets and muletouls 17 cts, corduroys, velveteens, and other double textiles for articles of dress 75 cts; **P.** Per kilo, cotton, raw 230 r, thread, single, raw, fine red or stamped with more than one colour 150 r, thread, white, single 235 r, ditto, coloured, single, not otherwise mentioned 270 r, ditto, twisted 370 r, lace and insertions 1,665 r, marly, tulle, ordinary canvas, crinoline, &c. 170 r, fine muslins, &c. 1,180 r, muslins and cambrics, unprepared 235 r, white muslins and cambrics, not otherwise mentioned 900 r, linseys, blankets, and moleskins 600 r, twills for printing or dyeing 220 r, canvas and sailcloth for vessels 70 r, ditto, not otherwise mentioned, sackcloth and Holland, grey or bleached 120 r, tissues, close-woven, plain, not elsewhere classified, grey 160 r, ditto, bleached 185 r, serges, damasks, sateens, transparent, grey, or bleached, not otherwise classified 330 r, ditto, transparent, dyed, or stamped, not otherwise mentioned 535 r, velveteens and bombazines 280 r, velvets, velvety stuffs and ribbons 600 r, shawls and handkerchiefs 649 r, carpets, druggets, and stair-carpets 260 r, candle-wicks 150 r, wicks not classified 570 r, knitted tissues and stuffs and stockings 1,095 r, trimmings, galloons, bobbin work (including the tares, excepting boxes) 760 r; **R.** Common, viz., tissues not bleached, dyed, dressed or figured, woven wicks, nets and girths 8½, middle-fine, viz., tissues, bleached, dressed, dyed (except printed), figured or not 10½, fine, viz., printed, also velvety tissues 18½, extra fine, viz., English tulle, bobbinet, muslin, lawn, gauze and other open-woven wares (except lace) £1 16s 7d, haberdashery and fringemakers' wares £1 12s 6d, hosiery of cotton, plain or trimmed with other tissues £1 12s 6d, lace 5% a v, clothing made up or not from £3 13s 2d to £20 according to sections of Tariff Act under which its composition falls; **Rus.** Tissues, unbleached, bleached, figured or dyed (except those dyed Turkey red):—

Dyed (except those dyed Turkey red):—							
Up to 8 square arshines† to the funt*				£6	2	2	per cwt*
From 8 to 12				"	"	8	5 6 "
" 12 to 16				"	"	10	16 9 "
Of more than 16				"	"	23	12 11 "
Tissues, printed or dyed Turkey red:—							
Up to 8 square arshines† to the funt				£10	16	9	"
From 8 to 12				"	"	13	0 1 "
" 12 to 16				"	"	16	7 1 "
Of more than 16				"	"	26	0 2 "

Cotton tissues of every kind with applications of gold, silver tinsel, straw or other ornaments and if cut out for ladies' dresses £26 os 2d,* velvet, plush and plush ribbons £9 17s, haberdashery (galloon or braid), hosiery, knitted wares, chenille and articles thereof and canvas with or without embroidery commenced on it £7 17s 8d,* buttons £6 10s 1d,† tulle (net) of every kind for furniture with or without designs and net or muslin curtains £8 17s 4d,† all other cotton tulle £43 7s, lace £65 os 5d,† waxed and oil-cloth and manufactures thereof £2 7s 3d,† ready-made clothing (1) made-up linen of all kinds, including underlinen, but exclusive of tablelinen, towels and handkerchiefs and those coming under article 2 £35 7s 9d,† (2) made of lawn and batiste and all kinds trimmed with lace or embroidered £47 3s 8d,† (3) ready-made clothes for men £30 9s 6d,† (4) clothing for women and articles of all kinds not otherwise specified, untrimmed £53 18s 8d,† (5) the same trimmed with ribbon, velvet,

* = 409·5 grammes; † English lb = 453·5 grammes.

† Arshine = 0·71 metre.

Woven Manufactures—continued.

- silks, feathers, fur, embroidery and lace £82 11s 3d.† (NOTE.—Caparisons, coverlets, curtains, blinds and similar articles, hemmed and stitched pay duty as materials of which they are made.)
- Sal.** **Sal.** Raw, not rated, antimacassars, 30in long, per doz 12/4, arabias, 36in, per yd 4½d, artificial flowers, per lb 15/5½, badanas, 36in wide, per yd 3d, bands, per doz pairs 9½d, cloths, 45in long, per doz 6/3, white and cambric, 28in, per yd 1½d, ditto, 32in ditto 2½d, ditto 40in ditto 3d, canvas, 30in wide, ditto 1½d, carpeting, per square piece 1½d, costumes 6/3 each, ditto, not made up, ditto 4d, ditto and for children, ditto 4/8, cuffs, shirt, per doz pairs 4/4½, drill, 32in, per yd 3½d, ditto, linen mixed with cotton, 32in, ditto 5½d, ditto ditto, fine, 32in, ditto 1½d, drawers, per doz 12/4, dimity, 32in, per yd 6½d, ditto, quilted ditto 1/3, damask, 28in width, ditto 5½d, ditto, mixed with wool, ditto 1/1, embroidery, per lb 4/8, frock coats, each 7/9½, jackets, ditto 4/8, garters, per doz 2/2, ditto, children's, ditto 1/6½, gauze, per yd 3½d, holland, mixed with linen, 36in width, ditto 9½d, handkerchiefs, 18in, per doz 11d, 28in 1/6½, 36in 2/4, lawn, 40in width, per yd 4½d, bordered with wool or silk, ditto 5½d, lace, 36in width, ditto 4½d, bordered, &c., ditto 6d, muslins, 28in width, ditto 2½d, 36in 3d, mixed with wool 6d, padding, per lb 9½d, packing cloth, linen mixed with cotton, 36in, per yd 2½d, prints, 24in, ditto 1½d, 36in, ditto 3d, shirtings, 26in, ditto 1½d, 30in, ditto 2½d, 36in, ditto 2½d, drill, 36in, ditto 3d, shawls, lace, per doz £1 17s 0½d, small size, ditto £1 4s 8d, ordinary, each 6/3, china silk, per doz 1/6½, ditto large, ditto 15/5½, china crape, each 4/8, sashes, &c., per doz 4/8, sashes mixed with wool, ditto 4/8, skirts, ditto £1 17s 0½d, sailcloth, per yd 9½d, surplises, each 12/4, socks, men's, per doz 3/1½, children's 1/6½, mixed with wool 2/6, stockings, per doz, sewn 5/5½, unsewn and women's 9/4½, sewn 3/1½, children's 1/6½, shirts, per doz 15/5½, ditto, with linen collars and cuffs, ditto £1 4s 8d, scarves, ditto £2 15 6½d, tassels, per lb 2/3½, undershirts, per doz 9/4½, ditto, mixed with wool, ditto 13s 10½d, vests, ditto £9 17s 0½d, white spreads, 2 yds, each 1/6½, 3 yds 3/1½, wraps, per lb 6/3, wrapper, each 16/7½; **S.** Close-woven tissues, plain, unbleached, bleached or dyed in pieces or handkerchiefs, measuring up to 25 threads inclusive in the square of 6 millimetres £3 2s 10d, of 26 threads and above £3 10s 11d, close-woven tissues, printed, twilled or figured in the loom up to 25 threads inclusive £4 17s 8d, of 26 threads and above £5 1s 2d, open-woven tissues, as muslins, batiste, lawns, organdines and gauzes, all kinds £4 11s 0d, quiltings and piqués £4 5s 4d, corduroys, velveteens or other double textures for wearing apparel £5 0s 7d, net or tulle £8 9s 10d, lace, crochet of all kinds, including crotchet edgings £4 15s 6d, lace other than crotchet £10 19s 6d, knitted wares in pieces, shirts or drawers £3 19s 5d, ditto stockings, gloves, &c. £5 3s 2d, fringes, galloons, &c. £4 1s 3d, ready-made clothing, as material of which made with an addition of 30%, embroidered articles ditto, mixed tissues (1) tissues of cotton mixed with silk or wool—see silk tissues mixed and woollen tissues mixed respectively, (2) tissues of cotton mixed with linen as pure linen tissues, (3) tulle of cotton foundation, although embroidered with silk or other material will pay duty as cotton tulle, when there is a mixture in the foundation duty will be payable on the predominating material; **Sn.** Tissues of pure cotton, sailcloth 7/11, bookbinders' cloth £1 8s 3d, velveteen, plush and fustians £2 10s 10d, gauze, muslin and other similar open-woven wares, also close-woven wares containing at least 80 threads in the space of 1 square centimetre £4 18s 10d, tulle £7 1s 2d, other kinds not bleached or dyed £1 8s 3d, bleached or dyed £2 10s 10d, printed or stamped £3 2s 1d, ribbons and tapes £3 2s 1d, blinds, painted or printed £2 10s 10d, lace and blonde £6 12s 8d, fringes galloons, cords, cording, &c. £3 2s 1d, hosiery, gloves, stockings, &c. £3 6s 7d, ready-made clothing, sheets, towels, &c., hemmed or with needlework as material of which made with an addition of 20%, embroidered articles as material upon which embroidered with an addition of 20%; **Sz.** Tissues, plain, twilled, bleached, dyed, printed 14/2 69, quilted, figured, dimity, damask, brilliants, figured 6/6, velveteen, figured 20/4, blankets, without needlework or trimming, unbleached, also ditto bleached, of dyed yarn, dyed, printed 17/5, blankets with needlework or trimming £1 0s 4d, felt tissues,

† Arshine = 0.71 metre.

Woven Manufactures—*continued*.

- not finished, for paper making 16/3'08, ribbons and haberdashery, also hosiery £1 os 4d, embroidery and lace £2 os 8d, clothing, under-clothing, and other articles ready-made with needlework £1 8s 6d ;
- T. US.** T. All kinds 8% a v ; **US.** Cotton tissues, piece goods not exceeding 100 threads to the square inch, counting the warp and filling, unbleached 1½d per square yard, bleached 1½d, dyed, coloured or printed 2½d, ditto exceeding 100 and not exceeding 200 threads to the square inch, counting the warp and filling, unbleached 1½d, bleached 2d, dyed, coloured or printed 2½d. **NOTE.**—On all unbleached cotton cloth not exceeding 200 threads to the square inch, counting the warp and filling, valued over 4d per square yard, bleached valued at over 5d, dyed, coloured, stained, painted or printed valued at over 6½d a duty of 40% a v is levied, ditto exceeding 200 threads to the square inch, unbleached 2d per square yard, bleached 2½d, dyed, coloured or printed 3d. (**NOTE.**—On unbleached cotton cloth exceeding 200 threads to the square inch valued at over 5d to the square yard, bleached valued at over 6d, and dyed, coloured, stained, painted or printed valued at over 8d a duty of 40% a v is levied.) Hosiery, stockings, hose, half-hose, shirts and drawers, and all cotton goods made on knitting-machines or frames composed wholly of cotton and not otherwise mentioned 35% a v, ditto fashioned, narrowed or shaped wholly or in part by knitting-machines or frames, or knit by hand, and wholly of cotton 40%, cotton cords, braids, gimps, galloons, webbings, gorings, suspenders and braces not specially enumerated 35%, cotton lace, embroideries, insertions, trimmings, lace window curtains, cotton damask, hemmed handkerchiefs and cotton velvet 40%, all manufactures of cotton not specially enumerated, including corsets of whatever material 35%, cotton cloth which upon examination is found to be neither wholly bleached nor wholly unbleached, the web consisting of yarn which has been bleached before the cloth is woven, and the other portion unbleached, is dutiable at two different rates of duty, and pays the highest of these two rates, viz., 2d per square yard, the rate prescribed for bleached cotton of this character, narrow strips of a very low quality of muslin 8in wide and under, which has been crimped and felled so as to remove them from the commercial condition of cotton cloth 35% a v, silk-striped cotton "Italians" consisting of bleached cotton cloth with coloured silk stripes occurring at intervals, the silk being an important and leading feature of the fabric, pay duty on all manufactures of cotton not specially enumerated or provided for, viz., 35% a v, cotton muslin caps slightly trimmed with cotton lace, the embroidery extending throughout the whole article, are dutiable at the rate of 40% a v, cotton belting composed of cotton with two threads of metal woven into each edge, is dutiable as manufactures of cotton ; **USC.** Per kilo, unbleached cloth, without any white or coloured part, and without figures or sewing 7/8, blue fulas or white cloth, or unbleached, with white parts, smooth, without colouring, figures, sewing or embroidery, as bogotanas, calicots, liencillos, madapolanes, croydons and others of the same kind 2/1, drills and other white and coloured fabrics not otherwise mentioned 2/6, coverlets, Marseilles and figured, and damasked fabrics not comprised in other groups, and velveteen, tape and ribbons 2/11, ordinary handkerchiefs, with or without borders, shawls and mauds, and fabrics for making same 3/4, socks and other textiles, commonly called tricot materials, as undershirts, drawers and gloves, muslins, lawns, and other transparent fabrics, damasks, carpets, hammocks, and ready-made clothing, without embroidery, laces, or other ornaments of articles subject to higher duties 3/9, all kinds of embroidered fabrics, or meshed, and their imitations, inclusive, laces, insertions, and other similar and ready-made clothing, not otherwise mentioned 5/, fringes, galloons, cords, braids, tassels and like objects 3/9, wicks for lamps and tinder boxes 10d, wicks and twisted cotton for bugies, candles, or matches 5d, cords for bridle reins 10d, mixed fabrics pay same rate as highest materials contained ; **Ven.** 2nd class, boat sails ; 3rd class, cordage, blue hollands ; 4th class, heavy bands, bruzas, canvas, duck, twine, mats (1 metre long, 50 centimetres wide), furniture cloths, sails for vessels, lamp wicks, chair bottoms ; 5th class, arabias, white britannia, brown cotton, unbleached osnaburgs, regatta stripes (brown), cotonia (for cots), domestic (unbleached), drill (unbleached), elephants, linings, white blankets, gingham, embroidery or knitting white hollands, brown Irish

Woven Manufactures—continued.

cottons, unbleached drillings (white or coloured), coarse gingham, bleached shirting, wide shirting, silesia (white or coloured) white shirting, savajo (croydons), simpatico (shirting); 6th class, German cloth (white or coloured), knit undershirts, knit bands, gowns, (made or cut), knit caps, bombazee (white or coloured), bordon (white or coloured), coloured brilliantine, hammock cords, socks, stockings, calicones (coloured), knit drawers and pants, calicones, table-covers, bed-spreads, coqui (white or coloured), regatta stripes (bleached or coloured), cretonas, hammocks, malvinas (coloured), cloaks coverings, damask (white or coloured), underskirts, estripe, fustians (made or cut), razete (white or coloured), bed quilts, parasols, knit work, cloth for underskirts (embroidered or not), chemisettes (made or cut), table-cloths, nainsook, candle wick, towels, doilies, handkerchiefs, umbrellas, coloured percales, piqué (white or coloured), bustles, poplins, white cottons, coloured calicoes, wadding; 7th class, fine bands, barge, portmonnaies, blondas, borlas, all cotton shirts, children's shirts (cut), crochet covers, zephyr (white or coloured), girths, ribbons, gauze (white or coloured), hangings, curtains, cravats, cord, corsets, jackets, creapo (coloured), shawls, grenadines (white or coloured), gloves, holan-batista, victoria lawns, garters, insertions, laces, fringes, galloons, pillow slips, mosquito netting, velveteen, muslins and organdies (white or coloured), scarfs, passamentaria, tulle crochet work, renque and tarletan (white or coloured), strings and suspenders; 8th class, blouses, linen-bosom shirts, overcoats, children's shirts, capes, collars, petticoats, dotted shawls, holan-batista or gauze (made into ruffs, ruches, caps, or other adornments) lazos, tulle (made up), cuffs, men's ready-made clothes, ruches (fine), tafita, mantillas, pants, drawers, shirt fronts, children's fine shirts; 9th class, caps, dresses, women's ready-made clothing

Woven Manufactures (Linen, Hempen and Jute), per cwt.—**A.** Tissues of flax, hemp, jute or other vegetable fibre, with the exception of cotton, without admixture of silk, wool or other animal hair (a) grey packing cloth, *i.e.*, coarse unbleached, plain or simply twilled but not figured stuffs, of linen or hemp, which contain not more than 5 warp threads per 5 millimetres 2/04, (b) common linen wares (1) cloth of not more than 20 warp threads per 5 millimetres, not bleached and not figured 12/2, (2) bleached, dyed, woven in colours or printed, having per 5 millimetres up to 10 warp threads £1 os 4d, from 11 to 20 warp threads £2 os 8d, (3) figured, having up to 20 warp threads per 5 millimetres £2 os 8d, (c) fine linen wares, *i.e.*, having more than 20 warp threads per 5 millimetres, unbleached, bleached, dyed, woven in colours, printed or figured £4 1s 3d, (d) batiste, gauze, lawn and other open-woven tissues £6 1s 11d, (e) tissues mixed with metal threads £8 2s 6d, (f) lace, edgings and embroidered tissues £15 4s 11d, velvety tissues £4 1s 3d, (g) jute tissues (1) sacking and packing cloth not exceeding 5 warp threads per 5 millimetres, raw, unbleached, undyed unfigured, plain or simply twilled, also ready-made sacks of such cloth 6/1, (2) rugs and wagon covers, matting of jute or other vegetable fibres not otherwise specified, bleached, dyed, printed, figured or not 12/2, (3) tissues for furniture covers and wearing apparel, carpets and all tissues of jute in combination with other vegetable textile materials, including cotton, provided that the jute threads exceed in number, plain or embroidered, combined or not with metal threads £2 os 8d, (h) haberdashery, hosiery, &c., also velvety tissues, cut or uncut pile £4 1s 3d, (i) ready-made clothing, as material of which chiefly composed, with an addition of 40%, (j) oil or waxed cloth (1) coarse, unprinted, for packing, &c. 6/1, (2) tarpaulins and floor-cloth £1 os 4d, (3) other kinds, including waxed muslin £1 10s 6d.

Ar. Linen manufactures for packing purposes 5% a v; **B.** Tissues of all kinds of linen, hemp or jute, sailcloth free, lace made by hand and on bobbins free, all other kinds 10% a v, ready-made clothing, hosiery, haberdashery, trimmings, &c. 10%; **Br.** Sailcloth 7500 per kilo, lace (Valencien) 25'000 and 30%, others 10'000, collars 2'100, ruffles 1'800 doz pair and 30%, sacks and bags 750 per kilo, tablecloths embroidered 48% a v, other 2'000 and 30%, rags 1000, tents of sailcloth, 48%.

C. Linen sheets, socks and stockings, tablecloths 35% a v, rough, not bleached, sailcloth, bags, empty 15% a v.

Ch. Linen, fine, as Irish or Scotch, not exceeding 30 yards long, per piece 0'5'0'0, coarse, as linen and cotton, or silk and linen mixtures not exceeding 30 yards long, per piece 0'2'0'0, sailcloth,

Woven Manufactures—continued.

- not exceeding 50 yards long, per piece 0'4'0'0, mats of all kinds per hundred 0'2'0'0, matting, roll of 40 yards 0'2'0'0, jute 100 catties 0'2'0'0; **Cor.** Flax, hemp and jute $5\frac{1}{2}\%$, manufactures $7\frac{1}{2}\%$; **D.** Linen hempen and jute tissues, unbleached, containing less than 24 threads to the square $\frac{1}{2}$ inch, or weighing $7\frac{1}{2}$ ozs avoirdupois or above to $4\frac{1}{2}$ square feet $4\frac{1}{2}\%$, other kinds $14\frac{1}{2}\%$, sailcloth, tarpaulin cloth, weighing $7\frac{1}{2}$ ozs avoirdupois and above to $4\frac{1}{2}$ square feet, also drug-getting (so far as such cloths are not included above) $14\frac{1}{2}\%$, marly, embroidery cloth, canvas, stiff nets and other open, gummed or stiffened wares, girths, bands and tapes, fish nets, also lamp wicks $\pounds 1$ 17s 8d, open and transparent tissues, combined or not with metal threads or spun glass, crochet, lace, fringes, trimmings and button-makers' wares $\pounds 5$ 12s 11d, other kinds, printed wares, knitted wares, hosiery and velvet stuffs $\pounds 3$ 15s 3d, dyed in colours, not printed $\pounds 2$ 16s 6d, of one colour, also damask, drills, &c., undyed $\pounds 2$ 7s 1d, undyed plain tissues, also wadding $\pounds 1$ 8s 3d, ready-made clothing when not lined or trimmed, or when the lining or trimming is not liable to a higher duty than the material of which made, as the material of which chiefly composed, with an addition of 50%, when the lining or trimming is liable to a higher duty than the material of which made, as the material of which chiefly composed with an addition of 100%; **E.** Per kilo, raw and manufactured $10\frac{1}{2}\%$; oilcloths for floors, stairs, &c., 24d; **F.** Tissues of linen or hemp, plain linen and diapers, having in the warp and woof in the space of 5 square millimetres after division of the total by 2, unbleached, 6 threads or less $8\frac{1}{2}\%$, 7 and 8 threads $11\frac{1}{2}\%$, 9, 10 and 11 threads $\pounds 1$ 2s 4d, 12 threads $\pounds 1$ 6s 5d, 13 and 14 threads $\pounds 1$ 16s 7d, 15, 16 and 17 threads $\pounds 2$ 6s 9d, 18, 19 and 20 threads $\pounds 3$ 9s 1d, 21, 22 and 23 threads $\pounds 5$ 5s 8d, 24 threads and above $\pounds 6$ 1s 11d, bleached, dyed or printed 25% above unbleached, oilcloth $6\frac{1}{2}\%$, damasked linen for hangings or bedding, unbleached $\pounds 1$ 16s 7d, cream-coloured, bleached or mixed with white threads or dyed, pay as unbleached damasks with an addition of 25%, table linen, damasked, unbleached, containing in the warp per 5 square millimetres, 12 threads or less $\pounds 1$ 10s 6d, 13 or 14 threads $\pounds 2$ 2s 3d, 15, 16 or 17 threads $\pounds 2$ 14s 1d, 18, 19 or 20 threads $\pounds 3$ 19s 3d, 21, 22 or 23 threads $\pounds 6$ 1s 11d, more than 23 threads $\pounds 7$ 0s 2d, table linen, clouded, bleached or mixed with white threads or dyed pay as unbleached with an addition of 25%, drills unbleached $\pounds 1$ 19s 5d, cream-coloured, bleached, or mixed with bleached or unbleached threads or dyed, pay as unbleached with an addition of 25%, tissues of linen, &c., tapes and fringe makers' wares, unbleached or drab $\pounds 2$ 8s 9d, cream-coloured, bleached or dyed $\pounds 2$ 16s 11d, hosiery $\pounds 1$ 12s 6d, lace and guipures pay as lace and guipures of cotton, handkerchiefs embroidered, and other embroideries on a linen ground $\pounds 7$ 6s 3d, mixed tissues, hemp or flax predominating in weight, as tissues of flax and hemp, according to class, ready-made clothing and articles wholly or partly made up 10% above highest rate chargeable on material of which composed, tissues of jute having in the warp and woof in the space of 5 square millimetres after division of the total by two, unbleached, 3 threads or less $4\frac{1}{2}\%$, 4 and 5 threads $6\frac{1}{2}\%$, 6, 7, and 8 threads $9\frac{1}{2}\%$, more than 8 threads, as linens, according to class, bleached or dyed, 3 threads or less, $6\frac{1}{2}\%$, 4 and 5 threads $9\frac{1}{4}\%$, 6, 7, and 8 threads $14\frac{1}{2}\%$, more than 8 threads, as linens, according to class, carpets, short or long nap $8\frac{1}{2}\%$, jute tissues, mixed with other materials, provided the jute predominates in weight, as tissues of jute, according to class; **G.** Undyed druggeting of jute or Manila hemp $6\frac{1}{2}\%$, dyed do. $12\frac{1}{2}\%$, linen cloth, ticking, drill, unbleached, having in the warp and woof per 4 square centimetres 40 threads or less $6\frac{1}{2}\%$, 41 to 80, $12\frac{1}{2}\%$, 81 to 120, $18\frac{1}{2}\%$, above 120, $\pounds 1$ 10s 6d, bleached, dyed, printed or woven, of bleached, dyed, or printed yarn, having in the warp and woof per 4 square centimetres, 120 threads or less $\pounds 1$ 10s 6d, above 120 $\pounds 3$ 0s 11d, damask of all kinds, tablecloths, bed linen, and towelling, &c., $\pounds 3$ 16s 3d, ribbons and tapes, edgings, fringes, gauze, imitation lace, &c., $\pounds 2$ 10s 10d, hosiery, and all articles combined with metal threads $\pounds 2$ 10s 10d, embroidery $\pounds 3$ 16s 3d, thread lace $\pounds 20$ 6s 6d, oilcloth, coarse, unprinted, packing cloth $6\frac{1}{2}\%$, waxed muslin $\pounds 1$ 5s 5d, other kinds of oilcloth $15\frac{1}{2}\%$, ready-made clothing, underlinen $\pounds 3$ 16s 3d, other kinds $\pounds 7$ 12s 6d; **Gr.** Cotton, flax, and jute raw free, cotton tissues for linings $\pounds 1$ 12s, cotton flannel $\pounds 2$ 8s, **HI.** cotton tissues for ladies' dresses $\pounds 3$ 4s; **HI.** Manufactures **Hay.** (flax, etc.) free; **Hay** Manufactures, from $\frac{1}{2}$ d to 10d per ell

Woven Manufactures—continued.

- H.** sails for ships 20% a v; **H.** Sailcloth free, all other manufactures 5% a v; **I.** Issues of jute, plain, per cwt 8/1½, velvet £3 os 11½d, all other pay duty as tissues of hemp and linen according to quality, tissues of linen and hemp, unbleached, plain, having a square of 5 millimetres per side, counting in both warp and weft, 10 threads or less 10/2, 10 to 26 threads 30/6, 26 to 40 threads £1 19s 2d, above 40 threads £2 9s 6d. Unbleached, figured and damasked 8/1½ additional to duty on unbleached plain, bleached, washed in lye, plain 12/2½ additional, ditto figured and damasked 8/1½ additional to duty on bleached plain, coloured or dyed plain 14/2½ additional to duty on unbleached plain, ditto, ditto, figured and damasked 8/1½ additional to duty on coloured or dyed plain, printed plain 32/6 additional to duty on bleached plain, ditto figured and damasked 8/1½ additional to duty on printed plain, embroidered with chain stitch £4 1s 3d additional to duty on tissue of which composed, with lock stitch, £6 1s 11d additional to duty of which composed, floor-cloths, tarpaulins, &c., tarred, oiled, &c. 12/2½, ditto waxed 24/4½, braids £2 12s 10d, hosiery and knitted goods plain £2 12s 10d, shaped (*foggiate*) £3 19s 3d, buttons, galloon and tapes of flax and hemp £2 12s 10d, lace and tulle 2/6½ per lb, tissues of flax, hemp, and jute mixed with metallic threads of gold, silver gilt or silvered 1/9½ per lb additional to duty on material of which composed, of common metal 8½d per lb additional ditto, ready-made articles, sacks, bed and table linen, towels, &c., 10% extra to duty on material of which composed, collars, cuffs, and men's shirts twice duty on material of which composed, all other 40% extra duty on material of which composed; **J.** Linen all qualities 20 cents per 10 yards; **M.** Carpets and rugs solely of hemp, of tow, or any other unspecified vegetable fibre, plain, crossed, figured or with uncut pile 0'25 sq m, ditto with cut pile 0'35, shirts and nightshirts, not embroidered, of all kinds, sizes and colours n w 3'80 per kilo, ditto embroidered n w 7'00, linen lace and netting of every kind, and all manufactures, even though ornamented with silk or with metal other than gold or silver l w 9'00, thread of unbleached or coloured hemp, fine or common, including that half twisted, of all sizes, in balls or skeins l w 0'13, thread of linen or hemp, white or coloured, on reels, including glacé thread for rebobos 2'00, linen shirt fronts, plain or embroidered n w 6'00, elastic web of linen or hemp, more than 4 centimetres wide, g w 0'70, clothing of linen stuff, cut out in pieces, for dresses in all kinds, not otherwise distinguished n w 1'90, tissues of linen or hemp, unbleached, white or coloured, of all kinds, not plain 0'22 sq m; **Nic.** Per lb, oakum ½d, jute, gunny, or hemp bags 1½d, saddle-bags, hammocks, and like articles 2d, sailcloth, canvas for cots, and stretchers 6½d, table-cloths, napkins, towels, and all brocaded stuff in pieces 8½d, coarse linen stuffs, bleached and unbleached, sheeting and all drillings 10½d, fine and plain linen cloth, lawns, batist handkerchiefs, and shawls, plain and brocaded 2'0½d, shirts, fronts, collars and cuffs, white or coloured, ready-made clothing, laces, fringes, and all kinds of trimming 3/5, cotton goods mixed with linen or hemp pay duties as linen goods; **N.** Manufactures of linen, hemp, or jute fishing nets, as the material of which made, with an addition of 10%, engine hose free, horse and furniture girths 7/4, carpets and carpeting 15/3, tapes and ribbons, also ribbons or tissues mixed with indiarubber or gutta percha, and waistbands of the same £3 2s 1d, drill and damask, also handkerchiefs not otherwise specified £1 13s 11d, knitted wares, dyed or not £3 2s 1d, other tissues, close woven bleached, weighing 3'9 ounce to 2'7 feet square 3/11½, other kinds unbleached 3/11½, bleached, or of one colour, even if applied by printing or rolling 15/3, dyed, of several colours, not printed £1 os 11d, printed £3 2s 1d, open or transparent, blonde, bobbinet, lace, and tulle £7 1s 2d, other kinds £4 19s 4d, trimmings, buttons, fringes, &c., £3 16s 3d, floorcloth, matting, tarpaulin, and other cloth, weighing 470 grammes or more to the half metre square 7/4, oilcloth £1 17s 10d, ready-made clothing as the material of which made, with an addition of 10%. (NOTE.—Manufactures of flax, hemp, or jute, mixed with cotton, pay as cottons.) **Per.** Manufactures 10%; **PR.** Per kilo, textiles, raw, with or without coloured stripes, smooth, plain, or crossed, as packcloths, hessian, sacks, and like goods, up to 5 threads 6 cts, smooth, plain, raw, as nankeen, bramanse, sailcloth, osnaburg, duck, Irish linen, striped, and the

Woven Manufactures—*continued*.

- like, up to 10 threads 20 cts, 11 to 15 threads 22 cts, 16 to 20 threads 65 cts, 21 threads and upwards 1 peso 23 cts. (NOTE.—The four preceding items, printed, pay the corresponding duty on the thread which they have, plus 20%.) Twill, raw or crude, coloured, with or without coloured stripes, as bed ticking and crude drills 30 cts, twill white, printed or dyed, damasked or flowered, as damask, drills, towels, and like goods 49 cts, laces and edgings of all kinds 4 pesos 60 cts, hosiery 1 peso 15 cts, carpets 7 cts, shoes or sandals (alpargatas) 14 cts, oilcloth for tables and floors, and for packing, per 100 kilos, 10 pesos 35 cts, other, per kilo, 25 cts; **P.** Marly and canvas for samples £1 14s 4d per cwt, lace, insertions, tulle, bobinet, &c, £17 3s, coarse cloths, Hessians sacking and packing cloth £2 1s 2d, Holland £3 8s 7d, damasks and drills £8 18s 4d, sailcloth 13/8, tissues not otherwise specified £6 7s 2d, tapes and ribbons £6 17s 2d, shawls and handkerchiefs £5 14s 4d, carpetings £2 5s 9d, hosiery and knitted wares £11 8s 8d, haberdashery, galloons, and fringes £8 0s 1d, waterproof tarred tissues 4/6¹/₂, oilcloth for floors 14/10, other oiled cloths £5 14s 4d, ready-made clothing as tissues of which made with addition of 50%, linen tissues mixed with silk or gold or silver 20% extra; **R.** Tissues knitted and woven wares of flax, hemp, jute, and other vegetable fibres, jute tissues, very common, unbleached or bleached, also carpets of pure jute 2/0¹/₂, unbleached cloth, very common 4/0¹/₂, unbleached cloth, close woven and thick, twills for bedding and furniture, bleached or not, cloth woven in colours (striped or checked canvas), unbleached ticks 12/2, plain unbleached cloth not included above 18/3, ticks of all kinds, unbleached, bleached, or woven in colours £2 0s 10d, plain linen cloth (holland) of all kinds, unbleached or dyed £3 1s, plain linen cloth (holland) of all kinds bleached £3 5s 1d, plain linen cloth (holland) of all kinds, printed, handkerchiefs with printed designs, in dozens, hemmed or not, table and toilet linen, unbleached or bleached, figured or damasked £5 1s 7d, batiste and lawn, handkerchiefs of the same in dozens, embroidered or not, but without lace £20, knitted wares of all kinds £9 3s 9d, haberdashery fringe-makers' wares and tapes unbleached, bleached or dyed £6 2s 6d, tulle and lace £28, tissues of other vegetable fibres unbleached, bleached or dyed 16/4, carpets of linen or hemp £2 9s, oil and wax cloths of all kinds, also tarred packing cloth £1 0s 5d, clothing made up or not, composed of tissues of linen or hemp from 4/1 to £60 10s according to certain restrictions (as to composition, admixture with other materials, &c.) in the Tariff Acts, underclothing made up or not, according to the sections under which it falls in the Tariff Act, from £3 13s 2d to £42; **Rus.** Linen cloths not otherwise specified, bleached and unbleached, of flax and hemp of all kinds, with or without admixture of cotton £16 14s 3d,† and batiste and lawn of pure flax or hemp or mixed with cotton, not dyed nor printed £35 7s 9d,† the same dyed, printed, or woven of different colours, also batiste and linen pocket handkerchiefs, as the material of which made with an addition of 20%, handkerchiefs marked, embroidered, or bordered with lace £47 3s 8d,† flax or hemp tissues, twilled or with woven patterns, with or without admixture of cotton, such as table linen and towels of all kinds £16 14s 3d,† drills of all kinds £11 15s 11d,† sailcloth £3 18s 8d, ticking for bedding and furniture, carpet textures of flax, hemp, jute, &c., and similar stout flax and hempen tissues, with or without admixture of cotton £9 16s 7d,† waxed and oilcloth and manufacture thereof, also canvas prepared for painting £2 18s 11d,† hempen hose for fire engines, hempen buckets and tarpaulin £2 18s 11d, linen and hemp hosiery not otherwise specified £12 5s 7d,† galloons, trimmings, &c., not otherwise specified £8 16s 11d,† buttons £11 15s 11d, lace, handmade £129 15s 1d, machine made of all kinds £68 16s 2d,† tulle for furniture, with patterns woven in or embroidered, and curtains of net or muslin £29 9s 10d, tulle or net, other kinds, plain or figured, for ladies' dresses £43 6s 11d,† ready-made clothing (see Woven Manufactures—Cotton); **Sal.** Per yard, common drill, mixed with cotton 5¹/₂d, fine ditto, ditto 11¹/₂d, canvas 1¹/₂d; **S.** Tissues of linen or hemp, plain, up to 10 warp threads inclusive in the square of 6 millimetres £1 15s 4d, ditto from 11 to 24 warp threads inclusive £4 7s 4d; ditto of 25 warp threads and above £7 16s 6d, tissues of linen or hemp, twilled or figured £3 14s 4d, plain tissues of jute with or without admixture of cotton 18/3, tissues of jute, twilled or figured, with or without admix-

Woven Manufactures—continued.

ture of cotton $\text{£}1$ 16s, lace $\text{£}25$ 8s, knitted wares $\text{£}9$ 6s 2d, oilcloth and waxed cloth for floors and for packing $8/10$, oilcloth, other kinds $\text{£}1$ 6s 3d, fringes, galloons, cordings, &c. $\text{£}4$ 1s 3d, ready-made clothing as material of which made with an addition of 30%, embroidered articles ditto, mixed tissues, (1) tissues of linen and cotton as pure linen tissues, (2) tissues of linen mixed with silk or wool, see silk tissues, mixed, and woollen tissues, mixed, respectively;

Sn. Sn. Linen and hemp, tissues, plain or twilled, except sateen and "atlas," without pattern, having in warp and woof in the space of a square centimetre 25 threads or less 10/9, 25 to 35 threads 19/9, 35 to 50 threads $\text{£}2$ 10s 10d, above 50 threads $\text{£}4$ 4s 8d, sailcloth 10/9, carpets not included above $\text{£}1$ 2s 7d, ticks and "corset webbing" not included above $\text{£}2$ 10s 10d, other tissues of linen and hemp $\text{£}4$ 4s 8d, tissues of jute unbleached or undyed free, bleached or dyed $\text{£}1$ 2s 7d, waxed and oilcloth, floorcloth 14/1, other kinds $\text{£}1$ 13s 11d, tapes and ribbons $\text{£}3$ 2s 1d, braces and belts $\text{£}1$ 13s 11d, blinds painted or printed $\text{£}2$ 10s 10d, lace and blonde $\text{£}6$ 12s 8d, fringes, galloons, cords, cordings, &c. $\text{£}3$ 2s 1d, hosiery, gloves, stockings, &c. $\text{£}3$ 6s 7d, ready-made clothing, sheets, towels, &c., hemmed or with needlework as the material of which made with an addition of 20%, embroidered articles as material upon which embroidered with an addition of 20%;

Sz. Sz. Tissues, plain, twilled, figured, unbleached or half-bleached, having from 14 to 22 threads in a square of 5 mm, also unbleached or half-bleached, having more than 22 threads per square of 5 mm, and all bleached, dyed, or printed tissues except tulle 6/6 (warp and woof both included), tulle, plain or figured, unbleached, bleached, dyed, printed 12/24, ribbons and haberdashery, also hosiery 6/6, embroidery and lace 12/24, cords, ropes 1/24, string and band, unbleached, not twisted, 4/104, other cord-makers' wares, such as string and band twisted, bleached, dyed, also threads 6/6, sacks and hose 8/11, mats of jute, Manilla hemp, coco, and similar vegetable fibres, coarse 4/04, ditto, dyed, printed, &c. 6/1, jute carpets, dyed, printed, &c., 2/104, oil cloth, common, 1/24, oiled linen for packing 3/3, clothing, underclothing, and other articles ready-made of linen with needlework $\text{£}1$ 8s 6d;

T. T. All kinds 8% a v; **US.** Burlaps not exceeding 60 inches in width, of flax, jute or hemp, or of which either of those substances is the component material of chief value 30% a v, burlaps exceeding 60 inches in width 40%, brown and bleached linens, ducks, canvas, diapers, crash, huckaback, handkerchiefs, lawns, or other manufactures not otherwise specified, of flax, hemp or jute or of which either of those substances is the component material of chief value 35%, Russia and other sheetings 35%, sailcloth 30%, bagging for cotton, valued at 34d or less per square yard 7/ per cwt, valued at over 34d per square yard 9/4, other bagging or similar material composed wholly or in part of hemp, jute or flax 40%, lace, insertions and embroideries 30%, hemp or jute carpeting 3d per square yard, all other manufactures of flax or of which flax is the component material of chief value, including under-clothing, tapes, braids, stockings, &c., and all goods that cannot be measured by the yard 40%, all other manufactures of hemp or manilla 35%, all other manufactures of jute 35%, oilcloth for floors, stamped, painted or printed 40%, oilcloth foundations or floorcloth canvas 40%, linen pockets, so called, composed of linen and metal threads woven together 45%, East India hemp, commercially known as Bombay hemp $\text{£}5$ 4s 2d per ton;

USC. USC. Per lilo, empty bags or sacks of hemp, tarred or not, with or without impermeable paper, and also the ordinary fabric they are made of 11d, coleta 5d, common unbleached fabrics, as creguela, sheeting, brine, duck, caserilla, and fabrics for awnings, excepting drills 1/3, fine unbleached fabrics, not otherwise mentioned 2/6, brown, white, and coloured drills, creas, platillos, nlemanisco, fabrics for table-cloths, towels, and napkins, bed-covers, lining for beds, ribbons, sheeting, and like articles not otherwise mentioned, all without sewing or embroidery 3/4, handkerchiefs, caps, socks, gloves, britannias, coquillo, estopilla, picardia, irlandia, labales, roarrandop, fine cambric, and listados imitating that fabric, of cotton, fringes, galloons, bandages, braids, cords, tassels, and other like articles, and ready-made clothing, without embroidery, lace, or other ornaments subject to higher duty 4/2, all kinds of embroidered fabrics or meshed, and imitations, including laces, embroideries, and like articles, and in ready-made clothing not otherwise mentioned 5/.

Woven Manufactures—continued.

varnished fabrics for roofing of country buildings and bridges 2½d, common fabrics, prepared or varnished, for floors, and common oil-cloth for coaches, excepting that for table-covers 10d, mixed fabrics pay same rate as highest material contained; **Ur.** Jute cloth in pieces 20% a v; **Ven.** 2nd class, hemp; 3rd class, flax, bagging, fishing tackle; 4th class, bags, canvas; 6th class, arabias, checks, domestic, sheeting, bramant (unbleached), Irish linen (unbleached), ticking (unbleached), bramant, bleached, britannias, damask, counterpanes, table-cloths, drills, towels, hammocks, rouen linen, poplins, umbrellas, bleached Irish linen, bleached ticking; 7th class, braid, belts, curtains, cravats, cord, fancy trimmings, fringes, fustians, girths, gloves, galloons, lace, mosquito-netting, muslins, pillow-cases, petticoats, ribbons, tassels; 8th class, cloaks, cambric, collars, cuffs, cloths, gauze, handkerchiefs, lawns, night-caps, ruffles, shirts, shirt-bosoms, shawls.

Woven Manufactures (Silk).—A. Silk, reeled, also twisted, made white or

coloured, or in connection with other spinning materials, floss silk (silk scrap) spun, also twisted, bleached or in connection, &c. 5½d per lb, silk goods, embroidered or with metal threads, tulle, gauze, blonds, laces (lace handkerchiefs) 3/7½ per lb, trimmings made of silk or half silk, cords, chenilles, &c., and ready-made trimming 4/6½, pure silk goods (*i.e.*, goods made of silk or floss silk alone), plain tissues 1/9½, other than plain 3/7½, hosiery, haberdashery, and button-makers' wares 3/7½, other pure or floss silk goods 4/6½, half silk velvets and velvet ribbons 3/7½, other manufactures of half silk 2/3½, very common tissues of coarse woven waste silk 2½d, oiled silk 3½d. Ready-made clothing as material of which made with 40% additional; **Ar.** Silk thread 5% a v; **B.** Tissues of all kinds and and hosiery, haberdashery and ribbons 1/1 per lb, or at option of importer 10% a v, net and lace made by hand free, ready-made clothing 10%; **Br.** Tulle, barèges, broad stuffs 28'000 per kilo, corsets 2'000 each, ribbons 5'000 per kilo, scarves 24'000 to 30'000, gloves, stockings 24'000, black plush in combination with cotton 5'000, others of silk only 24'000, in combination with cotton 13'000, laces in combination with other materials 16'000 and 30%, ready-made clothing 15'000 or 60% a v, velvet, satin 14'000, in combination with other materials 7'000 and 30%, silk velvets 6'000, silk gauzes 14'000, ribbons 5'000, coarse silk goods 2'250, silk ties 15'00; **C.** Socks and stockings, ribbons, shawls, velvets, ready-made clothing, silk manufactures of all kinds 35% a v; **Ch.** Clothing 100 catties 10'0'0'0, silk, raw and thrown 100 catties 10'0'0'0, yellow, from Szechwan 7'0'0'0, reeled, from Dupions 5'0'0'0, wild, raw, 2'5'0'0, velvets not exceeding 34yds long, per piece 0'1'8'0, silk and cotton mixtures 100 catties, 5'5'0'0, refuse 1'0'0'0, cocoons 3'0'0'0, refuse 5% a v, cocoon skins (shells) 5% a v, floss (Canton) 4'3'0'0, from other provinces 10'0'0'0, ribbons and thread 10'0'0'0, ditto interwoven with imitation gold or silver 18'0'0'0 or 5% a v optional, piece goods 12'0'0'0, ditto Szechwan and Shantung 4'5'0'0, tassels 10'0'0'0; **Cor.** a v, raw, waste, &c, 8%, fabrics, Japanese, white, haberta, damasks, gauze, &c, 10%, velvet 20%; **D.** Silk wares, wholly of silk 4/0½ per lb, of silk mixed with other material, if either warp or woof or face is of pure silk 2/8½ per cwt, other kinds 1/6½, haberdashery, trimmings and buttonmakers' wares 2/0½, oiled silk and silk mixed with indiarubber 1/, ready-made clothing, when not lined or trimmed or when the lining or trimming is not liable to a higher duty than the material of which made, as the material of which chiefly composed with an addition of 50%, when the lining or trimming is liable to a higher duty than the material of which made, as the material of which chiefly composed with an addition of 100%; **E.** Per kilo, gold and silk embroidered articles 4/2; **F.** Of pure silk, tissues, hosiery and haberdashery, lace, crape, net or tulle foulards free, tissues, hosiery and haberdashery, of pure floss silk or of silk and floss silk, unbleached, bleached, printed or dyed 8½d per lb, tissues of waste floss silk for furniture weighing more than 250 grammes to the square metre 6½d, tissues, haberdashery and lace, of silk or of floss silk mixed with fine gold or silver 4/4½ per lb, ditto semi-fine or false gold or silver 1/3½, tissue of silk or of floss silk mixed with other materials in which the silk or floss silk predominates in weight 1/1, ribbons of silk or floss silk, pure or mixed with other materials, velvet, 1/9½, other kinds 1/3½.

Woven Manufactures—continued.

- G.** ready-made clothing and articles wholly or partly made up $10\frac{1}{2}\%$ above highest rate chargeable on material of which composed; **G.** Haberdashery and buttonmakers' wares of silk or floss silk $2\frac{1}{8}\%$ per lb, ditto of silk or half silk in combination with metal threads $3\frac{1}{7}\%$, hosiery of silk or floss silk $2\frac{1}{8}\%$, ditto in combination with metal threads $3\frac{1}{7}\%$, lace and blonde $2\frac{1}{8}\%$, if with metal threads $3\frac{1}{7}\%$, embroidery $2\frac{1}{8}\%$, ribbons of silk $3\frac{1}{7}\%$, of half silk $2\frac{1}{8}\%$, gauze and crape $4\frac{1}{16}\%$, tulle-figured $2\frac{1}{8}\%$, with metal threads $3\frac{1}{7}\%$, dyed or unbleached $1\frac{1}{16}\%$, very coarse tissues of unbleached silk waste, as grey packing cloth, press cloths, &c., combined or not with other materials or with a few dyed threads $\frac{1}{2}$ d per lb, other silk wares in combination with cotton, linen, wool or other spinning materials $2\frac{1}{8}\%$, ready-made clothing of silk or floss silk, pure or combined with metal threads $5\frac{1}{16}\%$, ditto of half silk $3\frac{1}{8}\%$, oiled silk $2\frac{1}{2}$ d; **Gr.** Of silk pure or mixed, lace and blonde, fichus, tulle, crape, gauzes, edgings with or without metallic or glass ornaments $2\frac{1}{8}\%$ 6s 1d per lb, embroidery, tissues with metallic threads, ribbons, hosiery and shirtmakers' wares, cords and sewn articles not specially distinguished $11\frac{1}{2}\%$ per lb, fringes, haberdashery and galloons of silk with or without ornaments of glass or metal $6\frac{1}{10}\%$, haberdashery and galloons of silk mixed with other materials $2\frac{1}{3}\%$, velvet and plush $17\frac{1}{2}\%$, tissues of silk of all colours not specially mentioned $8\frac{1}{7}\%$, tissues of silk mixed with other materials not specially mentioned $3\frac{1}{10}\%$, ready-made clothing for men and boys pays the duty on the description of article of which composed with an addition of 50% , ready-made clothing for women and girls is chargeable with the duty upon the material paying the highest rate with an addition of 50% , oiled silk $2\frac{1}{2}$ d; **Hay.** Lace, wide, per ell, 5d, narrow ditto 3d, socks, per dozen $2\frac{1}{2}$, ribbons, per piece of 12 ells, $4\frac{1}{2}$ d, of silk velvet, ditto, $\frac{1}{2}$ d, reticules ladies', each 8d, purses, each 6d, mantillas, ladies', per dozen £1 os 10d, ditto, young girls', ditto $5\frac{1}{2}$ d; handkerchiefs, black and coloured, from $4\frac{1}{2}$ to $8\frac{1}{4}$ each, twist for shakos, with fine gold or silver, each $8\frac{1}{4}$, ditto with imitation gold and silver, each $8\frac{1}{4}$, for dresses, per 100yds $1\frac{1}{8}$ d, for shakos, per doz $7\frac{1}{3}\%$, silk velvet twist for dresses, per ell $\frac{1}{2}$ d, fringe, ditto 1d, plush ditto 6d, silk velvet, ditto $1\frac{1}{8}$ d, cloth and other embroidered stuffs, ditto $1\frac{1}{8}$ d, gross of Naples, embroidered, plain or striped, satin, plain or without flowers, taffeta, and other stuffs of worked silk, for dresses, per ell 10d, levantine, Florence, and light silks, striped, ditto, $7\frac{1}{2}$ d, veils, each $8\frac{1}{4}$; **H.** Manufactures of all kinds 5% a v; **I.** Velvets and plushes of silk and floss silk $3\frac{1}{2}$ d per lb, figured $4\frac{1}{4}$ d, tissues of silk and floss silk, black, plain $2\frac{1}{8}$ d, figured $3\frac{1}{7}\%$, coloured, plain $2\frac{1}{10}\%$, figured $4\frac{1}{16}$, net tissues, plain $3\frac{1}{7}\%$, figured $4\frac{1}{16}$, velvets, mixed, containing from 12 to 50% , floss silk or silk, plain $2\frac{1}{8}$ d, figured $3\frac{1}{7}\%$, silk tissues, mixed, containing from 12 to 50% silk or floss silk, black, plain $1\frac{1}{5}\%$, figured $2\frac{1}{6}\%$, coloured plain $1\frac{1}{9}\%$, figured $2\frac{1}{11}\%$, tissues embroidered in chain-stitch $8\frac{1}{2}$ d per lb additional to duty on tissue of which composed in lockstitch $1\frac{1}{2}$ per lb additional, common tissues of waste and refuse silk exceeding 20c grammes per square metre and containing 12% and over silk waste, plain 10d, figured $1\frac{1}{6}\%$, silks, ribbons, and galloons, $1\frac{1}{2}$ additional to duty on tissue of which composed, hosiery and knitted goods, plain, as tissue of which composed, shaped, 50% additional to duty on hosiery plain, braids as ribbons, lace, tulle, crape, and blonde containing not less than 12% silk $4\frac{1}{9}\%$, lace and tulle, plain $4\frac{1}{9}\%$, figured $6\frac{1}{6}\%$, tissues with metallic threads of gold and silver $1\frac{1}{9}\%$ additional to duty on tissue of which composed, of common metal $8\frac{1}{2}$ d additional; buttons covered with silk or floss silk or mixed with other materials $1\frac{1}{9}\%$, ready-made articles as tissue of which composed with 50% additional; **M.** Silk and silk tissues, umbrellas, sunshades and parasols of silk, or of silk with an admixture of cotton, linen or wool of all kinds $1\frac{1}{75}$ each, raw silk of all kinds n w 2'00 per kilo, silk, with an admixture of other materials, rosettes of silk, or silk and cotton, or silk and wool, with metal ornaments other than gold and silver n w 5'00, silk nets with an admixture of indiarubber or of cotton and indiarubber n w 4'40, elastic web of silk and indiarubber, or of silk and indiarubber mixed with cotton, linen or wool, more than 4 centimetres wide (gross) $1\frac{1}{10}$; **Nic.** Manufactured, and mixed with other materials $4\frac{1}{5}\%$ per lb; **N.** Manufactures of silk, pure or mixed with other materials, blondes, bobbinet, lace or tulle $1\frac{1}{3}$ per lb, velvet and plush, other silk wares, pure or mixed, trimmings, fringes, &c. $1\frac{1}{2}$, oiled silk

Woven Manufactures—continued.

- PR.** 1/4, ready-made clothing as materials of which made with an addition of 10%; **PR.** Per kilo, silk and floss silk, spun and twisted 2 pesos, textiles, smooth or twilled, in pieces, cortes or handkerchiefs 4 pesos 60 cs, ditto, mixed with cotton in the woof 3 pesos 48 cs, transparent, plain, or worked, with or without a mixture of cotton or wool gauze, pine-apple muslin, crêpe (nipe), and like goods 11 pesos 74 cs, velvets and felts 11 pesos 50 cs, vestings, floss silk (escardo de seda), and those of floss mixed with silk 2 pesos 30 cs, tulle, laces, and edgings, silk or floss silk 6 pesos 90 cs, knit in undershirts, drawers, stockings, gloves, and other, with or without mixture of cotton or wool 5 pesos 80 cs, trimming 2 pesos 90 cs.; **P.** Silk plush pure or mixed 3/4 per lb, velvets and satins 12/2 per lb, ribbons 11/3, shawls 15/11, handkerchiefs 7/11, laces, tulle 12/3, tissues not otherwise specified, plain or figured 12/3, if less than silk 5/11, all the above with an addition of 30%, knitted wares 10/21, and haberdashery 5/11, with addition of 20%, ready-made clothes pay on tissues of which made with addition of 30%; **R.** Tissues and knitted wares of silk, stuffs and ribbons of silk and velvets, plain, figured, brocaded even when mixed with real or imitation gold or silver, crêpe, plain, embroidered or figured, gauze of pure silk or of silk mixed with gold or silver, tulle and blondes, hosiery and coverlets and haberdashery of pure silk 1/24 per cwt, tissues, knitted wares and haberdashery of silk mixed with other materials (except real or imitation gold or silver) 1/16, clothing made up or not, composed of certain tissues or
- Rus.** mixed with certain tissues of linen 1/60; **Rus.** Stuffs, handkerchiefs, ribbons of silk or waste silk 1/35 2d, foulards, plain or printed in the warp, velvet, plush, chenille of silk or half silk and ribbons of the same, also silk sieves 1/35 2d, foulards printed in the cloth, in the piece and handkerchiefs 1/30, stuffs, ribbons, handkerchiefs of half silk (with warp or woof of any other material) as well as of waste silk with an admixture of cotton, wool, flax, hemp, &c. 10/2, haberdashery (galloons, braids, trimmings), hosiery and knitted wares of silk or half silk with or without an admixture of other materials or of beads and bugles 4/61, buttons 2/11, tulle (net) in the piece, plain and figured with patterns for ladies' dresses 7/9, blonde or lace 1/35 2d, waxed or oilcloth of silk 4/61, ready-made clothing 1/35 6d, gobelin tapestry, irrespective of date of production and degree of artistic merit 1/21; **S.** Tissues or ribbons of floss silk, of waste silk or of raw silk, or of waste silk mixed with pure silk 1/10 per lb, other tissues or ribbons, plain or twilled 3/71, velvets and plushes of pure silk 4/5, ditto of silk with warp or woof of cotton or linen 2/11, tissues of silk (except velvet and plush), mixed with linen or with cotton, the warp or woof of which is one of these materials 1/51, tissues of silk and wool, the warp and woof of which is of wool 1/10, tulle lace or edgings of silk or waste silk 2/61, knitted wares of silk or waste silk 3/71, fringes, galloons, cordings, &c. 2 21, ready-made clothing as materials of which made with an addition of 30%.
- Sn.** embroidered articles ditto 30%; **Sn.** Tissues of pure silk plush 1/21 per lb, other kinds, including velvet and those mixed with gold or silver and silk stuffs for embroidery work 1/5. (NOTE.—Velvet even with cotton back will pay as silk velvet.) Tissues of half silk, all kinds 1/21, ribbons of pure silk and velvet ribbons 1/5, ditto of half silk 1/21, lace or blonde of silk or half silk 1/5, hosiery, gloves, stockings, &c., of silk or half silk 1/5, shoemakers' wares 1/21, galloons, fringes, cordings, cords, &c., of silk or half silk 1/5, ready-made clothing, scarves, handkerchiefs, hemmed or with needlework as material of which made with an addition of 30%, embroidered articles as materials upon which embroidered with an addition of 20%; **Sz.** Tissues of silk or waste silk, unbleached, bleached, dyed or printed 3d per lb, hosiery, haberdashery and ribbons of silk or floss silk 3d, lace 1/4d, embroidery, also lace 4/35d, clothing, underclothing and other articles, with needlework of silk or half silk 81/4, per cwt, tissues, haberdashery or lace of silk or floss silk with an admixture of gold or silver 1/4d, **T.** All kinds 8 1/2 a v; **US.** Buttonmakers' wares 10% a v, all manufactures of silk or of which silk is the component material of chief value not otherwise specified 50%, Japanese screens, although manufactured of articles of which silk is the component material of chief value 40% a v.; **USC.** Per kilo in threads, fabrics, &c. 5/-, mixed fabrics pay the same as the highest class material contained.

Woven Manufactures (Woolen and Worsted), per cwt.—A. Woolen and worsted

Woven Manufactures—continued.

- tissues, pure or in combination with other materials except silk (a) shaggy coverlets "Kotzen," halina cloth, press cloth, sieve bottoms, network and knotted nets, undyed, list, coarse felts of animal hair, also tarred or varnished 12/2, (b) carpets and rugs not included above, unprinted felts and felt wares of wool or of wool mixed with other weaving materials, also girths £2 os 8d, (c) tissues not specially named, weighing per square metre (1) above 500 grammes £2 10s 10d, (2) 500 grammes and less £4 1s 3d. (NOTE.—The above tissues woven throughout with cotton warp of one colour, not figured (imitation cloth) weighing more than 300 grammes per square metre £2 10s 10d.) (d) Velvet and velvet-like stuffs, printed wares, including felts, haberdashery and hosiery £4 1s 3d, (e) open-woven wares £5 1s 7d, (f) lace, lace cloths, embroidered stuffs, tissues mixed with metal threads, also shawls and similar tissues £7 12s 5d, (g) ready-made clothing, as materials of which chiefly composed and 40%
- B. additional, blankets 25% a v; B. Woollen tissues, India cashmere shawls and scarves 5% a v, all other manufactures of wool or hair 10%;
- BR. Woollen braid 4% per kilo, woollen laces 14/100 per kilo, blankets 540 per kilo; Ch. Woollen and cotton mixtures, viz., lustrés plain and brocaded, not exceeding 31 yards long, per piece 0'2'0", woollen blankets per pair 0'2'0", broad-cloth and Spanish stripes, habit and medium cloth 51in to 64in wide per chang 0'1'2'0", long ells 31in wide per chang 0'0'4'5", camlets, English 31in wide per chang 0'0'5'0", ditto Dutch 33in wide 0'1'0'0", ditto imitation and bombazettes 0'0'3'5", cassimeres, flannel and narrow cloth 0'0'4'0", lastings, 31in wide 0'0'5'0", ditto imitations and Orleans 34in wide 0'0'3'5", bunting not exceeding 24in wide, and 40 yards long, piece 0'2'0'0", Spanish stripes, inferior, per chang 0'1'0'0"; Cor. 8% a v; D. Felt for sheathing ships and roofing felt 1/2 per cwt, undyed unprinted felts, wares of cloth list and carpets £1 8s 3d, open transparent tissues, combined or not with metal threads or spun glass, crochet, lace, fringes, trimmings and buttonmakers' wares £5 12s 11d, other tissues £3 15s 1d, ready-made clothing, when not lined or trimmed, or when the lining or trimming is not liable to a higher duty than the material of which made, as the material of which chiefly composed with an addition of 50%, ready-made clothing, when the lining or trimming is liable to a higher duty than the material of which made, as the material of which chiefly composed with an addition of 100%; E. Per kilo 1/64; F. Manufactures of wool, pure, unmixed, cloths, casimirs and other milled tissues, and short napped tissues not milled, stuffs for furniture weighing more than 400 grammes to the square metre £2 os 8d per cwt, moire £1 os 4d, other kinds, weighing 3/4 lb or less to the square yard £2 16s 11d, above 3/4 lb to 1 lb inclusive to the square yard £2 10s, above 1 lb to the square yard £2 3s 1d, carpets, tapestry carpets (moquette bouclée) 18/3, velvet tapestry (moquette veloutée) £1 2s 4d, eastern £3 15s 7d, from the Jacquard loom (Brussels, Wilton and Kidderminster) chenille (Axminster) and other £1 12s 6d, hosiery of pure wool, gloves and articles of clothing not fitted £10 13s, other kinds, cut out and without seams £2 8s 9d, other kinds shaped or with the foot shaped out £4 18s 4d, fringemakers' wares and ribbons £4 1s 3d, fez caps and "bonnets rouges" 3/4d each, hangings (tapisseries) £10 3s 2d per cwt, shawls embroidered or figured, other than cashmere £6 10s 1d, tartans, not embroidered, containing 25 to 50% of cotton £1 12s 6d, containing less than 25% of cotton or wholly of wool £2 6s 0d, lace £6 1s 11d, worsted velvets for furniture £3 13s 2d, bolting cloth, seamless £3 5s, blankets £1 2s 4d, list slippers and fur-lined shoes (called Strasbourg shoes) £1 15s 4d, cloth list, free, woollens mixed with other materials, cloths, casimirs and other milled tissues, with cotton warp, short napped tissues not milled, wool predominating, weighing to the square metre 0'37 lb or less to the square yard £2 16s 11d, 0'37 lb to 0'55 lb inclusive to the square yard £2 6s 9d, 0'55 lb to 0'74 lb inclusive to the square yard £1 16s 7d, 0'74 lb to 1 lb to the square yard £1 6s 5d, 1 lb to 1 1/4 lb inclusive to the square yard £1 os 4d, above 1 1/4 lb to the square yard 14/3, mixed tissues, the warp of floss silk, wool predominating £4 17s 6d, carpets of wool and other materials mixed, in whatever proportion, as carpets of pure wool, hosiery as hosiery of pure wool, other kinds, wool predominating as tissues of pure wool, tissues of alpaca, lama, vicuna and camels' hair, pure or mixed with other

Woven Manufactures—*continued*.

- materials, alpaca, lama, vicuna or camels' hair predominating as tissues of pure wool, tissues of goats' hair manufactured in Europe as tissues of wool, other tissues of hair (poils), mixed or not with other materials, most hair (poil) 12/2, ready-made clothing and articles wholly or partly made up, 10% above highest rates chargeable on material of which composed. (NOTE.—Woolen tissues mixed with cotton or any other material will pay as tissues of wool, provided the wool predominates in weight.)
- G.** Tissues of wool or hair, pure or mixed with cotton or linen or metal threads (1) cloth list free, (2) coarse, unprinted, undyed felt 1/6½, per cwt, (3) carpets containing dyed or undyed yarn of animal-hair 12/2, (4) unprinted felts except those specified under No. 2) and felt wares, unprinted hosiery, carpets, printed or not, of wool, plain or in combination with other materials £2 10s 10d, (5) unprinted cloths and stuffs (not included under Nos. 7 or 8) (a) weighing more than 200 grammes per square metre £3 8s 7d, (b) weighing 200 grammes or less per square metre £5 11s 9d, (6) (a) printed wares (except carpets) weighing more than 200 grammes per square metre, fringe and buttonmakers' wares, plush, tissues combined with metal threads £3 16s 2d, (b) printed wares (except carpets) weighing 200 grammes or less per square metre £5 11s 9d, (7) lace, tulle and embroidery, also woven shawls of three or four colours £7 12s 5d, (8) woven shawls of five or more colours £11 8s 7d, (9) ready-made clothing £7 12s 5d; **Gr.** Woolen or hair tissues, coarse cloths, scutis, serges, coarse quilts, sashes and girths, ready-made clothes for sailors and thick cloaks made of coarse woolen tissues £1 12s, carpets, &c., carpets of animal hair 12/10, printed or made of felt £1 18s 4d, of dyed thread, woven or knit £4, Persian, Georgian and similar carpets £9 12s, tablecloths, curtains and door coverings £16, flannel shirts of any colour, roughly knit or woven and sewn, stockings of very coarse make, shawls of wool or of wool mixed with cotton, travelling bags, sailors' caps, bed and table covers of wool and cotton mixed £2 11s 2d, felt for hats and all felt, except for carpets and machinery and cloth list free, flannel shirts of every colour, finely knit or sewn, stockings finely knit or woven shawls and travelling caps, and bed and table covers of pure wool £8, velvet tissues, coverlets, ribbons, fringes and haberdashery, strings, edging cords, tassels, common shawls printed, small knitted shawls, sewn articles and felt tissues not included above £9 12s, shawls and cashmere shawls of merinos and similar tissues, lace, tulle, grenadines, fichus, embroideries and needlework mixed with metallic threads or not £19 4s, tissues of wool or other animal hair of any colour and make not specified (with the exception of fine tissues such as those included in the foregoing class) up to 150 grammes per square metre £19 4s, ditto 250 £12 16s, ditto 350 ditto £8, above 350 £4 16s, similar tissues having the warp or woof entirely or in great part of cotton up to 200 grammes per square metre £4, above 200 £1 11s 2d, fine ready-made clothing entirely of wool for men and children (for summer wear) £12 16s, ditto entirely of wool, thick, for winter £9 12s, ditto of cotton and wool, mixed, for summer and winter £5 4s, dresses for women and girls entirely of wool or not £24; **Hay.** Stuffs for trousers from ½d to 6d per ell, lace, narrow, per ell 1½d wide, ditto 2½d, raw wool, per lb 2d, shawls, per doz 12/6, socks 2/1, ribbons, for mattresses, per piece of 12 ells 1½d, shoes from 1/0½ to 6/3 per doz; **H.** Felt for paper manufacture free, all other woolen manufactures 5% a v; **I.** Per cwt, tissues of carded wool weighing 300 grammes or less per square metre, £4 15s 3d, 300 to 500 grammes £3 11s 1½d, above 500 grammes £3 0s 11½d, tissues of combed wool, all such tissues as contain even a non-predominating portion of that material, and those which contain silk in a less quantity than 12 per cent, weighing 200 grammes or less per square metre £5 15s 6½d, 200 to 500 grammes £4 9s 4½d, above 500 grammes £3 17s 2½d, tissues of combed wool with warp composed entirely of cotton £2 16s 10d, printed 20/3½ additional to duty on tissue of which composed, brocaded 16/3 additional, embroidered in chain stitch £4 15s 4d additional, in lock stitch £6 1s 11d additional, felts above 3 millimetres in thickness 8/1½, under 3 millimetres as tissue of carded wool, tissues of hair, sieve cloth 12/2½, all other £3 7s 0½d, hosiery and knitted goods £4 9s 4½d plain, shaped £6 14s 1½d, braids £4 9s 4½d, galloons and ribbons £4 17s 7d, buttons £4 17s 7d, blankets, rugs &c. of ox, goat or sheep hair, undyed, with warp of flax or cotton 24/4½, blankets &c. of wool or wool waste, undyed according to

Woven Manufactures—continued.

- quality of tissue, including those in which other textiles, with the exception of silk, predominate in weight £2 2s 8d, tissues with metallic threads of gold and silver 1/5th per lb additional to duty on tissue of which composed, of common metals 8thd per lb additional, ready-made articles as tissue of which composed with 40% additional; **J.** Mattings, floor 75 cents per 10 yards, oilcloth, floor 70 cents per 10 yards, oilcloth, furniture 15 cents per 10 yards; **M.** Woollen tissues, unenumerated, of all kinds, not embroidered, 1 w 2'25 per kilo, ditto embroidered with any material other than gold or silver 3'50, woollen lace and netting, and all manufactures of these materials, even though ornamented with silk or metal other than gold or silver 1 w 8'00, ruching of mousseline de laine with or without woollen lace and small silk ornaments 1 w 5'50, shawl handkerchiefs or shawls, large and small, of wool, of all kinds, not netted, with or without woollen embroidery, and with or without fringe of wool silk and wool or silk and cotton n w 3'50, ditto with borders, squares, or silk embroidery and with fringe of any material n w 5'50, elastic web of wool of more than 4 centimetres in width (gross) o 80, woollen tissues of all kinds weighing up to 100 grammes per sq. m. n w 2'75, ditto from 100 to 250 grammes n w 1'50, ditto from 250 to 450 grammes n w 3'00, ditto from 450 to 600 grammes n w 2'50, ditto of more than 600 grammes n w 2'00; **Ni.** Wearing apparel, made up, woven or knitted 10% a v; **Nic.** Per lb. alpaca, merino, or other light fabric of wool, gloves, hose and shirts of all kinds, 1/8th, rugs and dyed sheepskins with wool on 1/8th, caseymeres, broadcloth, serge and flannels 2/1st, carpets, tablecloths and curtains 1/2nd, blankets, rugs, ponches 8thd, saddle-cloths 10thd, woolstuffs, common, homespuns 1/2nd, brocaded stuff, in pieces, fringes, laces, handkerchiefs, ladies' scarfs and shawls 3/5th, tape, ribbons, braid 2/1st, pants and men's ready-made clothing 2/7, lawns, nets, muslins, or other fine stuffs 5/2, dresses, ladies', made up or in fancy cuts 8/4th, goods with wool, cotton, or linen pay duties as woollen; **N.** Felt for machines, cloth list and cloths for paper machines free, felt other kinds £2 5s 2d per cwt, carpets and blankets and girths £1 6s 6d, knitted wares, coarse stockings, jackets, mittens, &c. 15/3, other kinds £3 2s 1d, ribbons and tissues mixed with india-rubber or gutta percha, and waistbands of the same £3 2s 1d, other tissues, lace, tulle, bobbinet and blonde £7 1s 2d, other open or transparent tissues £4 19s 4d, close-woven tissues embroidered with silk or metal threads £6 9s 10s all other kinds £2 5s 2d, trimmings, buttons, fringes, &c. £3 16s 3d, ready-made clothing as the material of which made, with an addition of 10%. (NOTE.—Tissues of wool mixed with silk pay as silk, and tissues of cotton mixed with wool pay as above.) **Per.** Wool, unwashed, washed 40%; **PR.** Per kilo, felt carpetings, horse blankets, and other uses, with or without handwork 14 cs, carpetings, Brussels, with or without handwork 39 cs, plain or twilled goods, of wool or mixed, with other materials, with hair on one or both sides, not cleaned, as coating, baize, blankets and similar goods 17 cs, cloths, cassimeres, ladies' cloth (elastocotines), lawns, and like goods (wool only) 1 peso 45 cs, ditto mixed with cotton 68 cs, goods, plain, smooth, pure wool, or mixed with cotton, as alpaca, Orleans, fine woollen stuffs, fetilla, and like goods up to 14 threads 50 cs, ditto 15 to 20 threads 78 cs, 21 threads and upwards 1 peso 29 cs, goods, worked, crossed, twilled, or damasked, wool only, as merino, damask, rep, alpaca, serge, and like goods 1 peso 45 cs, ditto mixed with cotton 68 cs; **P.** Per kilo, wool not manufactured, dyed 35 r, thread for embroidery, white 1'305 r, ditto coloured 2'120 r, thread not otherwise mentioned, white 510 r, ditto coloured 810 r, merinos 1'090 r, flannels pure or mixed 1'300 r, baizes 530 r, blankets 850 r, cloths 1'610 r, shawls and handkerchiefs 2'160 r, carpets 270 r, stuffs not otherwise mentioned 985 r, stuffs not otherwise mentioned, with the whole weft or warp of cotton, linen, or any other similar tissues 654 r, felt tissues, on silk or varnished ground 280 r, garters and girdles 1'615 r, bags (*alforjes* or coverlets) 320 r, knitted tissues and other wares 1'405 r, trimmings, ribbons, and galloons (including the tares, except boxes) 760 r; **R.** Tissues of wool, coarse coverlets with long hair halma cloth, coarse cloth carpets of all kinds 12 1/2 per cwt, cloth and other tissues analogous to cloth not printed, also flannels of all kinds, white or coloured £1 3s 7d, all other woollen tissues not included above, except shawls and lace, also haberdashery and fringemakers

Woven Manufactures—continued.

- wares, hosiery of all kinds, trimmed or not with other tissues £1 16s 7d, shawls, embroidered and figured, other than Indian shawls £10 3s 4d, Indian shawls £100 per cwt, lace £24, felt all kinds, also the following articles of felt, shoes and soles for shoes and coarse felt hats for peasants and soldiers 8/2, articles of felt other than those named above £3 11s 1d, carpets of wool of all kinds 12/3, felt, thick common, undyed or dyed of one colour 18/3, felt for carpets of all colours, printed or not £1 16s 9d, felt of all colours, semi-fine or fine £3 1s, articles of felt of all colours, semi-fine or fine £12 4s, clothing made up or not £3 5s to £24 according to sections under which from its composition it is charged, tissues or knitted wares of hair, tissues of all kinds £3 5s, knitted wares of hair, small wares, hats not made up £12 4s, mixed tissues, tissues of wool mixed with silk only or with silk and cotton, the silk forming only a design or ornament £6 2s, small wares and ribbons of wool mixed with other materials £8 2s 8d; **Rus.** Flannel, blankets, and horse cloths £8 13s 5d† per cwt, tissues of wool or goat's hair, fulled or unfulled, pure or mixed with cotton, plain, figured or embroidered, not otherwise enumerated £17 14s 8d†, (1) the same tissues printed pay 30% additional, (2) unmilled stuffs of wool or goat's hair having a warp or woof of silk, or of waste silk, pay as silk goods, but if the admixture of silk or of waste silk consist only of patterns or stripes, woven in or embroidered, such goods pay 20% in addition to the duties on unmilled stuffs, plain or printed, (3) handkerchiefs, scarves, &c., except those named below, pay duty as material of which made, bunting and white woollen stuffs for millers' sieves, sashes of wool without admixture of silk £4 18s 6d†, shawls, handkerchiefs, sashes and scarves, Turkish or Cashmere, and detached borders edgings and trimmings thereof, also French terno or half terno, or wool, pure or mixed with cotton, silk or waste silk £6 5s 5d†, unmilled woollen stuffs for use in manufactories, bags for oil pressing, sugar-bakers, &c., cloth list and felt undyed, dyed or printed £2 3s 4d,† fezes or Turkish caps of wool, embroidered or not with spangles 6/4 per dozen,† carpets £6 17s 11d per cwt,† hosiery and haberdashery (galloons, braid, &c.) and knitted wares also gloves, tapes and ribbons of wool, pure or mixed with cotton, silk or hemp £10 16s 9d,† (**NOTE.**—If embroidered or otherwise ornamented with silk 20% additional, ladies' and children's gloves trimmed with lace, &c., pay as articles of clothing trimmed.) Buttons £6 10s 1d,† lace £6 5s 5d, ready-made clothing for men £25 12s 3d, cloaks, &c., for ladies, trimmed or not £39 8s 2d,† other clothing for ladies untrimmed £44 6s 8d,† trimmed with ribbons, feathers, fur, embroidery or lace £68 19s 3d,†; **S.** Carpets £2 0s 6d per cwt, felts of all kinds £1 4s 4d, blankets and horsecloths £3 12s 4d, cloths and similar tissues of pure wool, waste wool, hair, or mixture of these materials £8 14s 9d, such tissues when the warp is wholly of cotton or other vegetable fibre, and astrakhans and plushes of the same materials £5 5s 7d, knitted wares of pure wool, or of wool mixed with cotton or other vegetable fibres £7 1s 1d, other tissues of pure wool, waste wool, hair or mixture of these materials £7 2s 3d, such tissues when the warp is wholly of cotton or other vegetable fibre £4 8s 2d, tissues of wool and silk (see silk tissues mixed), fringes, galloons, cordings, &c. £5 1s 7d, ready-made clothing, embroidered articles, as materials of which made with an addition of 30%; **Sn.** Woollen tissues, pure or mixed with linen or cotton, felts and carpets £1 13s 11d, filtering cloth, called press-duck 11/4, other kinds £4 18s 10d, tapes and ribbons £3 2s 1d, braces and belts £1 13s 11d, lace and blonde £6 12s 8d, galloons, trimmings, cords, cordings, &c. £3 2s 1d, hosiery, gloves, stockings, &c. £3 6s 7d, ready-made clothing, as the material of which made with an addition of 20%, embroidered articles as the material upon which embroidered with an addition of 20%; **Sz.** Raw, washed, waste, flock, shoddy, 1/46d, cured, dyed, combed 2/9d, yarn, dyed 3/7½, tissues, bleached, dyed, printed 10/2, blankets of all kinds, without needlework 6/6, ditto with needlework, also ribbons 12/2½, haberdashery, also hosiery 10/2, embroidery and lace, shawls and scarves 10/2, carpets, common, without fringe or needlework 5/9½, ditto other 10/2, shoes of list, also felt in the piece 6/6, ditto as hats, not trimmed 12/2½, tissues of felt, common, for paper-making £1 8s 5½d, clothing, underclothing, and other articles ready-made of wool or half wool, with needlework 16/3½, mattresses,

Woven Manufactures—continued.

T. UR. pillows, filled, trimmed £1 os 4d; T. 8% a v; UR. Cotton ticking 0'25 per kilo, chintzes 0'28 per kilo, cotton tissues 0'155 per kilo; US. US. Endless belts or felts for paper or printing machines £4 13s 4d and 30% a v, bunting 5d per square yard and 35% a v, flannels, blankets and hats of wool:—

	Per cwt.
Valued at not exceeding 30 cents per lb ..	£2 6 8 and 35% a v
" over 30 and under 40 cents ..	2 16 0 "
" " 40 " 60 ..	4 4 0 "
" " 60 " 80 ..	5 12 0 "
" " 80 ..	8 3 4 and 40% a v

Hosiery, knit goods and all goods made on knitting frames, balmorals and all articles composed wholly or in part of worsted, alpaca, goat or other animal hair (except such as are composed in part of wool) not otherwise specified:—

	Per cwt.
Valued at not exceeding 30 cents per lb ..	£2 6 8 and 35% a v
" over 30 and under 40 ..	2 16 0 "
" " 40 " 60 ..	4 4 0 "
" " 60 " 80 ..	5 12 0 "
" " 80 ..	8 3 4 and 40% a v

Women's and children's dress goods and real or imitation Italian cloths, composed in part of wool, worsted, alpaca, goat or other animal hair and valued at 20 cents or under per square yard 2½d per square yard and 35% a v, ditto and valued at over 20 cents per square yard 3½d, and 40%, composed wholly of wool, worsted, alpaca, goat or other animal hair or of a mixture of them 4½d and 40%. (NOTE.—All such goods with selvages wholly or in part of other materials, or with threads of other materials, introduced for the purpose of changing the classification are dutiable at 4½d per square yard and 40% a v, but on all such goods weighing over 4 ounces per square yard, a duty of £8 3s 4d and 40% a v is levied.) Croise, a light-weight material composed of worsted and cotton, and known commercially as worsted coatings, does not come under the category of "women's and children's dress goods." Ready-made clothing and wearing apparel of every description not otherwise specified, and balmoral shirts and shirting, and all similar goods composed wholly or in part of wool or worsted, alpaca, goat or other animal hair wholly or in part made up (except hosiery and knitted goods) £9 6s 8d per cwt a v, and 35%, cloaks, dolmans, jackets, ulsters and other outside garments for ladies' and children's use, and similar goods composed wholly or in part of wool or worsted, alpaca, goat or other animal hair wholly or in part made up (except hosiery and knitted goods) £10 10s and 40% a v, woollen cloths, shawls, and all manufactures of wool, pure or mixed with other materials not otherwise specified, valued at and not exceeding 80 cents per lb £8 3s 4d and 35% a v, ditto over 80 cents per lb £8 3s 4d and 40%, haberdashery, webbings, bindings, braids, galloons, fringes, gimps, cords, dress trimmings, head nets and buttons of wool or worsted or of which wool or worsted, alpaca, goat or other animal hair is the chief component part £7 and 50% a v, carpets, Aubusson and Axminster and carpets woven whole for rooms, Saxony, Wilton and Tournay velvet carpets 1/10½ and 30%, Brussels 1/3 and 30%, patent velvet and tapestry velvet printed on the warp or otherwise 1/0½ and 30%, tapestry Brussels, printed on the warp or otherwise, 10d and 30%, treble ingrain, three-ply and worsted chain Venetian carpets 6d and 30%, yarn, Venetian and two-ply ingrain carpets 4d and 30%, druggets and bookings, printed, coloured or otherwise 7½d and 30%, all other carpets and carpetings not otherwise specified 40% a v. NOTE.—Mats, rugs, screens, covers, hassocks, bedsides and other portions of carpets or carpeting are subject to the same rate of duty as the carpets or carpetings of like character or description; on all other mats (not exclusively of vegetable material), screens, hassocks and rugs, a duty of 40% a v is charged, rugs and shoddy £2 6s 8d per cwt, wax figures dressed in wool clothing, the latter being firmly fastened to the figures so that it cannot be removed without taking the whole to pieces 35% a v; USC. USC. Per kilo, not manufactured 2½d, blankets 2/1, carpets for floor or rugs 2/11, base, heavy coarse cloth, serge, 3/9, transparent fabrics, all kinds of embroidered or meshed fabrics and its imitations, including laces, embroidery, and like articles, ready-made clothing 5', mixed fabrics pay the same as highest material contained; Ven. 4th class, wool manufactured, 5th class, blankets, 6th

Woven Manufactures—continued.

class, counterpanes, umbrellas, 7th class, alpaca, braid, belts, aps, cravats, cassimere, casinet, cambrow, cord, damask, epaulettes, fancy trimmings, fringes, gloves, galloons, lace, nubias, ribbons, stocks, socks, saddlecloths, shawls, serge, tassels, tablecloths, undershirts, 8th class, curtains, hangings, shirts, shawls and tablecloths with silk borders or trimmings, 9th class, adornments and clothing for women and children, cloaks, paletots, overcoats, ready-made clothes.

Writing Machines.—See Paper, &c.

Wrought Iron.—See Iron and Steel.

Yarns and Thread (Cotton).—A. Yarns, single raw, per 100 kilos up to No. 12 English 6/1, No. 12 to No. 29 8/2, No. 29 to No. 50 14/3, above No. 50 16/3, double raw up to No. 12 8/2, No. 12 to No. 29 10/2, No. 29 to No. 60 16/3, above No. 60 12/2, single or double, bleached or dyed, up to No. 12 12/2, No. 12 to No. 29 14/3, No. 29 to No. 50 18/4, above No. 50 £1 0s 4d, with three or more threads, twisted, raw, bleached, or dyed £1 4s 5d, prepared for the retail trade, weavers' heddles made out of twisted yarns £1 15s 8d, cotton tissues, common, plain, raw £1 14s 7d, bleached £2 5s 10d, dyed £2 15s 11d, woven in various colours, printed £3 6s 0d, common figured, raw £2 5s 10d, bleached £2 15s 11d, dyed £3 6s, woven, &c. £4 1s 4d, common close, raw £2 15s 11d, bleached £3 6s, dyed £3 16s 3d, woven, &c. £4 11s 5d, fine raw £4 1s 4d, bleached, dyed, woven, &c. £6 2s, superfine (tissues made of yarns above 100) £8 2s 8d, stiff nets £2 15s 11d, embroidered tissues, laces £15 5s, velvets and velvet-like tissues, ribbons, trimmings, buttons, and knitted goods £4 11s 5d, wicks, girths, engine straps, hoses, nets and ropes, coarse £1 4s 5d; B. Unbleached and bleached, single or twisted, 20,000 metres or less to the half kilogramme, or 1 1-10 lb avoirdupois 6/1 per cwt, 20,000 to 30,000 metres ditto 8/2, 30,000 to 40,000 metres ditto 12/2, 40,000 to 65,000 metres ditto 16/3, above 65,000 metres ditto 4/0½, warped or dyed, single or twisted, 20,000 metres or less to the half kilogramme 10/2, 20,000 to 30,000 metres 12/2, 30,000 to 40,000 metres 16/3, 40,000 to 65,000 £1 0s 4d, above 65,000 4/0½. (NOTE.—Cotton yarns mixed with other material pay as cotton yarns, provided the cotton predominates in weight.)
Br. Single, for weaving or warping, raw or white '160, dyed '200, twisted or wicks for lamps '200, twisted or thread of any kinds, in bobbins, clews, or skeins, for sewing, crocheting 1'000 per kilo; C. Carpets, gloves, ready-made clothing 35% a v; Ch. Manufactures, viz., blankets per pair 0'2'0, broadcloth and Spanish stripes, habit and medium cloth, 51in by, 64in wide, per chang 0'1'2'0, woollen, long ells, 31in wide 0'0'4'5, camlets, English, 31in wide 0'0'5'0, ditto Dutch, 33in wide 0'1'0'0, ditto imitation and bourlaquettes 0'0'3'5, ditto cassimeres, flannel and narrow cloth 0'0'4'0, ditto lastings 31in wide 0'0'5'0, ditto imitation Orleans, 34in wide 0'0'3'5, ditto bunting, 24/40 per piece 0'2'0'0, woollen and cotton mixtures, viz., lustres, plain and brocaded, u.e. 31 yards long, per chang 0'1'0'0, per 100 catties cotton thread 0'7'2'0, yarn 0'7'0'0; D. Undyed 7/1, dyed and mixed with metal threads 18/10; E. Per kilo, threads for sewing bags and sails 5d; F. Single, unbleached, of 20,500 metres or less to the half kilogramme, or 1 1-10 lb avoirdupois 6/1, of 20,500 to 30,500 metres ditto 8/2, of 30,500 to 40,500, 12/2, of 40,500 to 50,500, 16/3, 50,500 to 60,500, £1 0s 4d, 60,500 to 70,500, £1 4s 5d, 70,500 to 80,500, £1 8s 5d, 80,500 to 90,500, £1 16s 7d, 90,500 to 100,500, £2 0s 8d, 100,500 to 110,500, £2 8s 9d, 110,500 to 120,500, £2 16s 11d, 120,500 to 130,500, £3 5s, 130,500 to 140,500, £4 1s 3d, 140,500 to 170,500, £5 1s 7d, above 170,500, £6 1s 11d, bleached 15% above the duty on unbleached, dyed or clouded 10/2 per cwt above the duty on unbleached, twisted in two or three strands, unbleached 20% above the duty on single unbleached, bleached 15% above twisted unbleached, dyed or clouded 10/2 per cwt above twisted unbleached, warped yarns unbleached 30% above the duty on yarns of which composed, bleached 15% above the duty on warped unbleached, dyed, 10/2 per cwt above the duty on warped unbleached, yarns of four or more threads unbleached, bleached or dyed, single twist '13d, 1,000 yards of single yarn, double or cable twist '18d ditto, thread in balls or on reels, cards, &c., of all kinds unbleached, bleached or dyed, single twist '18d ditto, double or cable twist '22d ditto. (NOTE.—Yarns mixed with other materials pay as yarns of cotton, provided the

Yarns and Thread—continued.

- G.** cotton predominates in weight.) **G.** Pure or mixed with flax, wool-silk or hair, single unbleached up to No. 17 English 6/1 per cwt, No. 17 to 45, 6/2, 45 to 60, 12/2, 60 to 79, 15/3, above No. 79, 18/3, double unbleached up to No. 17 English 7/7, 17 to 45, 10/8, 45 to 60, 13/9, 60 to 79, 16/9, above 79, 19/10, single or double, bleached or dyed, up to No. 17 English 12/2, 17 to 45, 15/3, 45 to 60, 18/3, 60 to 79, £1 1s 4d, above No. 79, £1 4s 5d, cable twist and sewing thread £1 15s 7d; **Gr.** Cotton yarn and cotton thread, unbleached yarn, up to English No. 24, 19/2½, above £1 5s 7d, bleached yarn, up to English No. 24, £1 1s 2d, above, £1 8s 2d, cotton yarn, water dyed, up to English No. 24, £1 5s 7d, above, £1 13s 3d, cotton yarn, oil dyed, irrespective of number, £2 8s, threads for sewing, white or coloured £1 18s 5d; **Hay.** Per dozen spools 1d, coloured 3d; **H.** All kinds free; **I.** Single unbleached of not more than 10,000 metres, ½ kilogramme, 7/4 per cwt, from 10,000 to 20,000 ditto, 9/0, 20,000 to 30,000 ditto, 12/2½, 30,000 to 40,000 ditto, 14/7½, 40,000 to 50,000 ditto, 18/3½, 50,000 to 60,000 ditto, 21/2, of more than 60,000, £1 4s 5d, single bleached, 20% above the duty on single unbleached, ditto dyed 10/2 per cwt above the duty on unbleached, twisted, unbleached, bleached or dyed as the single yarns unbleached, bleached or dyed of which composed and 16/11 per cwt additional, warped yarns as the yarn of which composed and 15% additional, cotton, in bales or in mass, free, waddings 2/5½ per cwt, sewing thread wound on reels, in balls and the like, prepared for retail sale £2 8s 9½d per cwt, Vienna yarns as cotton yarns with 4/0½ per cwt additional, cords, as yarn of which composed, nets, as yarn of which composed with 10% additional; **J.** Shirtings, grey, white, and twilled, white, spotted or figured, drills and jeans, white brocades, tea-cloths, cambrics, muslins, lawns, dimities, quiltings, cottonets, all the above dyed, printed cottons, chintzes, and furnitures (a) not exceeding 34in wide 7½ cs per 10 yards, (b) 40in 8½ cs, (c) 46in 10 cs, (d) exceeding 46in 11½ cs, taffachelas not exceeding 31in 17½ cs, taffachelas exceeding 31 and not 43in 25 cs, fustians, cotton velvets, velvetens, satinettes and cotton damask not exceeding 40in 20 cs, gingham 31in 06 cs, 43in 09 cs, handkerchiefs per dozen 05 cs, singlets and drawers 25 cs, tablecloths each 06 cs, cotton thread, plain or dyed, on reel or ball 7 boos 50 cs per 100 cattie, cotton yarn, plain or dyed, 5 boos ditto, raw cotton 1 boo 25 cs ditto; **Nic.** Per lb, for wicks or weaving 3d; **N.** Undyed not twisted 3/11½ per cwt, ditto twisted 7/11, other kinds 11/4; **PR.** Per kilo, spun and twisted, from 1 to 3 threads **P.** 26 cs, over 3 threads 58 cs; **P.** Single unbleached £1 10s 10d, bleached **R.** £2 13s 9d, dyed £3 1s 9d, twisted £4 4s 7d; **R.** Unbleached or bleached single 6/1, ditto twisted 8/2, dyed, single or twisted 18/11; **Rus.** No. 45 English and below, unbleached £1 15s 6d, bleached and dyed (except Turkey red) £2 6s 4d, dyed Turkey red £2 9s 3d, above No. 45, unbleached £2 9s 3d, bleached and dyed, also sewing thread £2 19s 1d, *Autonomous Tariff:* Cotton yarn, single corded, unbleached or bleached 6/1, twisted, of two or more threads, bleached or unbleached 8/1; **Sal.** Thread, per lb 1/6½, on reels, 100 yards, per gross 3/1½, yarn, red or purple, per lb 4½d, other colours 3d; **S.** Single or double, unbleached, bleached or dyed, up to No. 35 (English) inclusive £1 10s 9d, No. 36 (do) and above £2 0s 8d, twisted, of three or more threads, unbleached, bleached or dyed **Sn.*** £3 11s 1d; **Sn.** Undyed 11/3½, dyed or printed all kinds 19/9, sewing thread £1 2s 7d; **Sz.** Single unbleached 2/5½, ditto bleached 3/3, twisted, bleached or unbleached 3/3, dyed 4/5½, in spools, balls or skeins 8/1½d; **T.** All kinds 8% a v; **US.** Thread or yarn not on spools, single or twisted, value not exceeding 1 0½ per lb, £2 6s 8d per cwt, value from 1 0½ to 1/8 per lb, £3 10, 1/8 to 2/1 per lb, £4 13s 4d, 2/1 to 2/6 per lb, £5 16s 8d, 2/6 to 2/11 per lb, £7 14, 2/11 to 3/4 per lb, £8 17s 4d, 3/4 to 4/2 per lb, £11 4s, value exceeding 4/2 per lb, 50% a v, yarn on spools containing on each spool not more than 100 yards of thread 3½d per dozen spools, if exceeding 100 yards, for every **USC.** additional 100 yards or fractional part thereof 3½d ditto; **USC.** Per kilo, white thread 1/8, coloured 2/6.
- Yarns and Thread (Linen, Hempen and Jute).—A.** Of linen or hempen, single, unbleached 1/6½, bleached or dyed 5/1, twisted 12/2, linen yarns

* Conventional Tariff; the Non-Conventional figures are: £1 10s 10d—£3 11s 1d—£5 1s 7d.

Yarns and Thread—continued.

- prepared for retail sale, single 18/3, twisted £1 15s 7d, of jute, single, unbleached 1'6, twisted, bleached, or dyed 5'1; **B.** All kinds free;
- Br.** **Br.** Single, for weaving or warping, raw '10, ditto dyed '20, not otherwise distinguished (same as hemp yarn), hemp, single for warping or weaving, raw or white '240, ditto dyed '280, twisted or yarn of any kind, in bobbins, clews, or hanks, for sewing, crocheting, knitting, &c. 1'000, for shoemakers '280; **Ch.** Thread per 100 catties 0'7'2'0, yarn 0'7'0'0; **D.** Undyed 7/1 per cwt, dyed or mixed with metal threads 18/10; **F.** Of linen or hemp, single unbleached of 2,000 metres or less to the kilogramme, 5/3, from 2,000 to 5,000 metres, 5/11, 5,000 to 10,000, 7/6, 10,000 to 20,000, 10/9, 20,000 to 30,000, 13/1, 30,000 to 40,000, 16/4, 40,000 to 60,000, £1 2s 4d, 60,000 to 80,000, £1 10s 6d, above 80,000 metres, £2 0s 8d, bleached or dyed 25% above the duty on single unbleached, according to class, twisted, unbleached 25% above the duty on single unbleached, according to class, bleached or dyed 25% above the duty on twisted unbleached, according to class, glazed of 2,000 metres or less to the kilogramme 6/1, above 2,000 metres to the kilogramme same duties as on twisted linen yarns. (**NOTE.**—Linen and hemp yarns mixed with other materials pay as yarns of pure flax and hemp, provided the flax or hemp predominates in weight.) Of jute, unbleached less than 1,400 metres to the kilogramme, 2/0½, from 1,400 to 3,700 ditto, 2/5½, 3,700 to 4,200, 2/10½, 4,200 to 6,000, 4/0½, above 6,000 metres same duties as on linen yarns bleached or dyed, less than 1,400 metres to the kilogramme, 2/10½, from 1,400 to 3,700 ditto, 3/8, 3,700 to 4,200, 4/0½, 4,200 to 6,000 ditto, 5/8, above 6,000 metres to the kilogramme, same duties as on linen yarns. (**NOTE.**—Jute yarns mixed with other materials pay as yarns of pure jute, provided that the jute predominates in weight.) **G.** Single, undyed and unbleached to No. 8 English, 2/6½, above 8 to 20, 3/0½, above 20 to 35, 4/6½, above 35, 6/1, single dyed, printed or bleached to No. 20 English, 6/1, above 20 to 35, 7/7, above 35, 10/2, sewing thread £1 15s 7d, twisted, other kinds, and twine 18/3; **Gr.** Linen, hemp or jute yarns for sewing or embroidery £2 8s, all other linen, hemp or jute yarns 12/10; **H.** All kinds free; **I.** Hemp, flax, and other vegetable fibres (excluding cotton) raw and combed free, ropes and strings (*cordicelle e spago*), whether tarred or not, above 2 millimetres in thickness, per cwt 4/9, of 2 millimetres in thickness or less 10/2, nets, as the yarn of which composed with 10% additional, yarns of linen or hemp, single, unbleached 4/8, bleached or washed in lye 4/8, dyed 6/11, twisted, unbleached or bleached or washed in lye 9/5, yarns of jute, single, unbleached 4/0½, bleached 25% additional, twisted 13/8 per cwt above the duty on single sewing thread of flax or hemp, in balls or on reels prepared for retail sale same as on other yarns of same description; **Nic.** Per lb, all kinds 6½; **N.** undyed 1/8½, dyed not twisted 15/3, ditto twisted £1 0s 11d; **PR.** Per 100 kilogs, yarn, jute, 4 pesos 35 cs ditto, hemp or flax 23 pesos 20 cs thread, twisted of two or more threads 29 pesos; **P.** Of linen or hemp, single, unbleached and bleached £1 14s 4d, ditto dyed £2 5s 9d, twisted, unbleached, bleached or dyed £3 8s 7d, of jute or other vegetable fibres unbleached, bleached or dyed 1/2½; **R.** Linen or hemp yarn unbleached, bleached or dyed 18/3 per cwt, jute yarns unbleached, bleached or dyed 4/1, sewing thread of linen or hemp bleached, dyed or not £1 4s 5d; **Rus.** All kinds except sewing thread £2 12s 3d, sewing thread £2 19s 1d; **S.** Linen or hemp yarn single 11/, twisted of two or more threads £2 5s 5d, jute yarns single 3/2; **Sn.*** **Sn.** Linen yarns undyed and unbleached 11/4, dyed or bleached £1 2s 7d, sewing thread unbleached £1 2s 7d, bleached or dyed £1 13s 11d, jute undyed and unbleached 3/4½, dyed or bleached 10/2, double or twisted unbleached 11/3, bleached, dyed, or printed £1 2s 7d; **Sz.** Of linen, hemp or jute unbleached up to No. 10 inclusive 3d, ditto above No. 10, single 1/7½, bleached twisted 2/10½, dyed 6/1½, in spools, balls or skeins 9/9; **T.** All kinds 8% a v; **US.** Flax hemp or jute yarns 35% a v, flax or linen thread not otherwise provided for 40% a v; **USC.** **USC.** Per kilo, thread 1/8.
- Yarns and Thread (Silk, reeled).**—**A.** Of silk, unbleached or undyed, also of waste silk, undyed, not combined with other materials free, of silk bleached or dyed, of waste silk dyed, of silk or waste silk combined with other materials £1 15s 7d per cwt, sewing silk £1 15s 7d; **B.** All

* Conventional Tariff; the Non-Conventional figures are: 11/2—£2 0s 10d—3/2.

Yarns and Thread—continued.

- Br. kinds free; Br. Raw, white or dyed for weaving 2'000, floss for embroidering and twisting (silk twist) in hanks 6'500, in bobbins 2'000; D. Twisted or not twisted £8 9s 5d; F. Of waste silk unbleached, bleached, blue or dyed, single of 80,000 metres to the lb (avoirdupois) £1 10s 6d, of more than 80,000 metres to the lb £2 8s 9d, twisted of 80,500 metres or less in single thread £1 15s 1d, of more than 80,000 metres in single thread £2 16s 1d, of pure silk all kinds free; G. Silk or floss silk undyed and waste of dyed silk free, silk or floss silk dyed 18/3 per cwt, sewing silk undyed and dyed £3 16s 2d; Gr. Twisted or not, dyed or undyed, combined or not with other materials £48; Hay. Embroidery 1d per lb; H. All kinds free; I. Pure silk, single reeled, twisted or thrown, undyed, free, pure silk, dyed, 4½d per lb, waste silk, combed, 4½d per cwt, ditto, spun, £1 0s 3½d, sewing thread of silk or silk waste, wound on reels, in balls and the like, prepared for retail sale £5 1s 7d; Nic. Per lb, all kinds, 6/11; N. All kinds £2 12s 6d; P. Single or twisted of all kinds £11 8s 8d; R. Silk of all colours, single or thrown, including sewing thread 4/1; Rus. Twist, tram and organzine, also sewing silk and silk wound for woof or warp, yarn of "houree de soie," of silk waste, plain or mixed with cotton or wool, undyed £7 17s 8d, dyed and printed £15 15s 3d; S. Of waste silk, single 4/1, twisted £3 15s 2d, of pure silk, single 10/2, twisted £7 14s 5d; Sn. Not separately specified, but if admitted as dyed silk the duty is £2 16s 6d; Sz. Of silk or waste silk unbleached, floss silk combed 4½d, raw not thrown 7½d, all other 1/7½, of silk or waste silk bleached or dyed 6/6, in spools, balls or skeins 16/3; T. All kinds 8½ a v; US. All kinds 30%.

- Yarns and Thread (Woollen and Worsted).—A.** Yarns of coarse hair (horned cattle) 8/2 per cwt, mohair, alpaca, and genappe yarns 1/6½, all other woollen yarns, single, unbleached up to No. 45 metrical 8/2, above No. 45 12/2, twisted yarn, two or more threads, unbleached, up to No. 45 12/2, above No. 45 14/3, single, bleached, dyed, or printed, up to No. 45 12/2, above No. 45 16/3, twisted, dyed, bleached, or printed, up to No. 45 16/3, above No. 45 £1 0s 4d, single or double mixed yarns, dyed, pay 12/2, carpet warps, printed, with permits and under conditions of control prescribed by the Government 12/2; B. Not twisted nor dyed 8/2, twisted or dyed 12/. (NOTE.—Yarns of goat's hair, alpaca, llama, vicuna and camel's hair are assimilated to those of wool.) Woollen and assimilated yarns mixed with cotton or other materials pay as woollen yarns provided the wool or like materials predominate in weight; Ch. Woollen yarn per 100 catties 3'0'0'0; D. Undyed 9/5, dyed or mixed with metal threads 18/10; F. Single, bleached or not, undyed, of pure wool, measuring to 2 1-5 lbs avoirdupois, combed 30,500 metres or less, 8/2, from 30,500 to 40,500 metres, 11/5, 40,500 to 50,500, 14/8, 50,500 to 60,500, 17/11, 60,500 to 70,500, £1 1s 1d, 70,500 to 80,500, £1 4s 5d, 80,500 to 90,500, £1 7s 8d, 90,500 to 100,500, £1 10s 11d, above 100,500 metres, £1 12s 6d, carded, 10,000 metres or less, 4/10½, from 10,000 to 15,000 metres, 7/4, 15,000 to 20,000, 9/9, 20,000 to 30,500, 12/1, above 30,500 metres, 14/8, twisted for weaving, bleached or not, combed or carded, 20% above the duty on undyed single yarns, combed or carded, twisted for tapestry, bleached or not, combed, 30% above the duty on undyed single combed yarns, dyed, single or twisted, for weaving or tapestry, 10/2 per cwt above the duty on undyed according to class. (NOTE 1.—The length of twisted yarns is arrived at by multiplying the measurement by the number of single threads of which the yarn is composed. 2. Yarns of alpaca, lama, vicuna or camel's hair pay as woollen yarns, woollen yarns mixed with other materials as cotton, linen, &c., pay as woollen yarns, provided the wool predominates in weight.) Yarn of goat's hair 9/9; G. Pure or mixed with other materials except cotton, single, unbleached, 4/0½, double ditto, 5/1, single, bleached or dyed, 6/1, double bleached or dyed, also twisted three or more fold unbleached, bleached or dyed, 12/2, alpaca, genappe and mohair yarn, single, undyed or dyed, double undyed, 1/6½, double, dyed, twisted three or more fold, undyed or dyed, 12/2; Gr. Woollen yarns, unbleached, single or twisted free, bleached, dyed, twisted or not with the exception of yarn employed in the manufacture of fezes, £8 12s 10d, yarns for fezes dyed in oil not twisted free; H. Pure or mixed with cotton, twisted, of more than two threads, dyed or undyed, 3½ a v, other kinds, free; I. Wool, natural and washed, free, shoddy dyed and

Yarns and Thread—continued.

- carded, plain, per cwt 4/0½, combed, plain 6/1½, carded, dyed 8/1½, combed, dyed 10/2, shoddy dyed 8/1½, yarns carded single, unbleached up to 10,000 metres, per kilo 18 2½, above 10,000, per kilo 22/4½, yarns carded, bleached 20% additional to duty on unbleached, ditto, dyed 10/2 per cwt additional to duty on unbleached, combed worsted, single, unbleached up to 50,000 metres, per kilo 24/4½ per cwt, above 50,000 metres, per kilo £1 10s 6d, bleached 20% additional to duty on unbleached, dyed 10/2 per cwt additional to duty on unbleached, twisted 6/11 per cwt additional to duty on single; **Nic.** Per lb, thread for sewing and embroidering ladies' hats of all kinds 2/0½; **N.** Undyed 7/4 dyed or mixed with metal threads 11/4; **PR.** Wools of all kind and refuse, per 100 kilograms 18 pesos 86 cs, yarn, all kinds 69 cs; **P.** All kinds except for embroidery, bleached, £5 7s 6d, dyed, £8 11s 6d, for embroidery, bleached, £14 18s 5d, ditto dyed, £24 4s 9d; **R.** Of all kinds, undyed, £1 16s 7d, ditto dyed of any colour, £3 1s; **Rus.** Of wool or hair of all kinds pure or mixed with cotton, flax or hemp, undyed £4 8s 8d, dyed £5 3s 5d; **S.** Raw or in the grease £2 0s 8d, cleaned or bleached £3 7s 2d, dyed £3 19s 3d; **Sn.** Undyed 11/4, dyed or bleached (including lustre yarn) 19/9; **Sz.** Unbleached single or double 2/0½, ditto twisted of three or more threads 3/3, bleached, 3/3, dyed 3/8, in spools, balls or skeins, unbleached, single or double, 2/0½, bleached, twisted, three or more threads, 3/3, dyed, 3/8; **T.** All kinds 8% a v; **UR.** Flannel 0'75 per kilo; **US.** Valued at not exceeding 30 cents per lb, £2 6s 8d and 35% a v, ditto above 30 cents and not exceeding 40 cents per lb, £2 16s and 35%, ditto above 40 cents and not exceeding 60 cents per lb, £4 4s and 35%, ditto above 60 cents and not exceeding 80 cents per lb, £5 12s and 35%, ditto above 80 cents per lb, £8 3s 4d and 40%; **USC.** Per kilo, for knitting, &c. 2/6.
- Zinc and Zinc Wares**, per cwt.—**A.** Zinc, raw and old broken refuse free, bars, plates and sheets 1/6½, wire and pipes and coarse castings, plain or in combination with wood or sheet or bar iron, also hollowed or perforated sheets or plates 3/0½, zinc wares, common, as kettles, cooking utensils, &c., not lacquered or polished combined or not with wood or iron, 8/2, other kinds 15/3; **B.** Zinc unmanufactured all kinds free, zincwares 10% a v; **Br.** Per kilo, zinc in bars or pigs, in lumps or scrap, or any other raw state 70 r, in jewellery of any kind, plain varnished, gilded or silvered, or with imitation stones 4,000 r, in plates and in sheets, plain and prepared, for covering houses 120r, coloured or varnished, for other uses 200 r, nails, tin-tacks, &c. 240 r, articles not otherwise distinguished, plain 800 r, silvered or bronzed, entirely or in part 1,600 r, gilded, wholly or in part 2,400r. (NOTE.—In jewellery are included ornaments, rings, bracelets buttons not specified, garters, combs, and other ornamenta articles.) **C.** In bars free, in sheets or plates 15% a v, manufactured in spouting, tubes or reservoirs for building 25% a v; **Ch.** Saleable only under regulation 0'2'5'0 per 100 catties; **Cor.** 5% a v; **D.** Zinc unwrought free, in sheets, pipes, pans, &c. 2/4½, zinc wares varnished, lacquered or painted £1 17s 8d, other kinds 18/10; **F.** Zinc in pigs, bars or slabs, old broken articles and filings, free, rolled, 1/7½, zinc wares all kinds 3/3; **G.** Zinc, pure or alloyed with lead or tin, raw and old broken free, rolled 1/6½, zinc wares, common, not polished nor lacquered, plain or in combination with wood, iron, lead or tin, also wire, 3/0½, fine or lacquered wares plain or combined with other materials, provided they cannot be classified under the head of small ornamental wares, 12/2, small ornamental wares, £5 1s 7d; **Gr.** Zinc, raw, rolled or in sheets, also nails 3/2½, zinc wares, common, 12/0½, finer articles £1 12s, nails and sheathing for ships free; **HI.** 10%; **H.** Zinc, raw, in sheets or plates, wire, free, zinc wares, lacquered, painted or not, 5% a v; **I.** Zinc in pigs and old broken articles free, rolled in plates and sheets, 1/7, zinc wares, gilt, £1 19s 7d, wares neither gilt nor silvered, decorated or varnished 5/11½, wares neither gilt nor varnished, but with ornaments or varnish of any kind 19/9½; **J.** Spelter and zinc 60 cents per 100 catties; **M.** Per kilo, manufactures of zinc, of all kinds g w 0'20, zinc sheeting g w 0'07; **NI.** Zinc, rough and rolled, including plates and sheets for roofing, bolts and nails free, zincwork, either lacquered or painted 10% a v; **N.** Zinc in plates, bolts, bars and pipes, nails, wire free, zinc wares, gilt, silvered or plated £1 19s 6d, bronzed, varnished, lacquered or painted 19/9, castings weighing over 35 lbs each, free, other zinc wares, 8/6; **Per.** Ings.

Zinc and Zinc Wares—continued.

- PR.** or bar, sheets 20%, manufactures 45%; **PR.** The same rates as those upon tin and manufactures; **P.** Per kilo, zinc, manufactured in sheets or perforated for building, &c., finished or unfinished 27 r, ditto, not elsewhere specified 60 r, in bars or ingots free;
- R.** **R.** Unwrought in any form, filings, old broken articles, zinc in sheets and hammered, free, articles of zinc painted, varnished or not with or without relief or other ornaments combined or not with common materials but neither gilt nor silvered, also articles of various alloys imitating bronze £2 os 10d. (**NOTE.**—Articles comprised in this paragraph if gilt or silvered pay a surtax of 50% in addition to the duty of £2 os 10d.) **Rus.** Zinc in blocks 3/11½, in sheets 6/11, † zinc wares not painted nor polished 10/10, † painted or polished £1 7s 1d; † **Sal.** in bars, sheets, g w 1½d per lb; **S.** Zinc bars, lumps or cakes 2/0½, plates or sheets, wire and nails 5/6½, zinc wares plain or lacquered 9/7½, ditto gilt silvered or nicked 18/3;
- Sn.** **Sn.** Zinc and spelter unwrought and in plates, sheets or nails for sheathing ships, free, wares not painted nor lacquered, 3/11½, ditto painted or lacquered, 19/9, ditto gilt, silvered or plated £1 10s 6d;
- Sz.** **Sz.** Zinc cast in pigs or blocks, also filings and old broken articles 2d, rolled or drawn, in sheets or wire, 7½d, zinc ware, not polished nor painted 2/10½, polished, painted or varnished 6/6; **T.** All kinds 8% a v; **US.** Zinc or spelter in blocks or pigs and old zinc fit only for re-manufacture 7/, zinc or spelter in sheets 11/8 zinc wares, nails
- USC.** and all other manufactures 45% a v; **USC.** Per kilo, not manufactured, in sheets, including zinc for covering roofs, and as tubes, 2½d, manufactured 1/8; **Ven.** 3rd class, unmanufactured and zinc white, 4th, wire and manufactured, not specified

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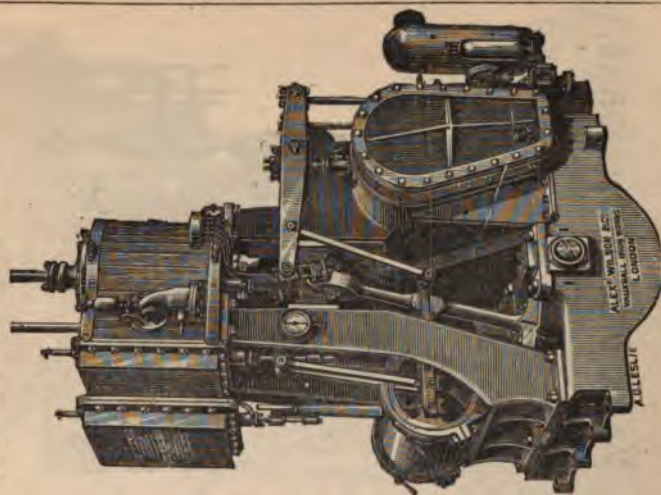
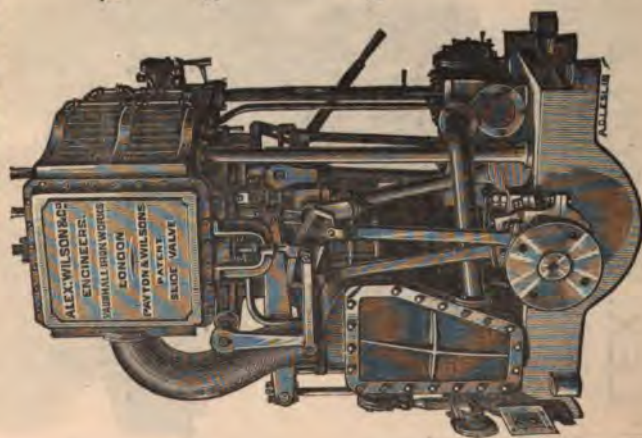
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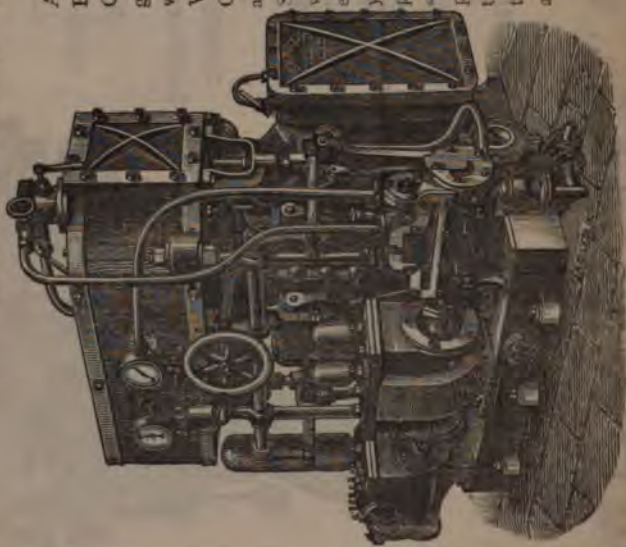
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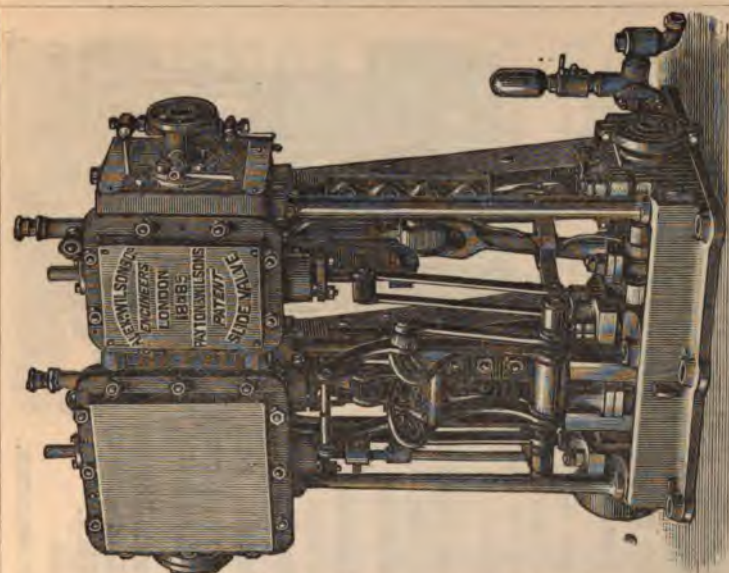
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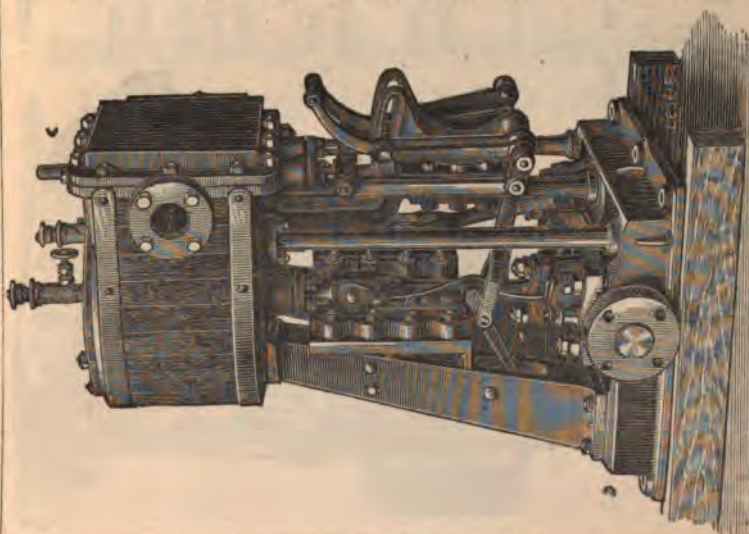
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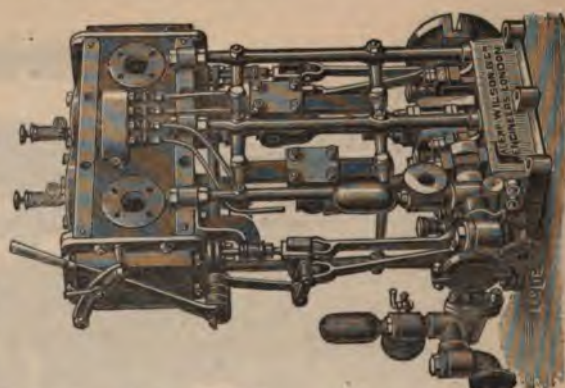
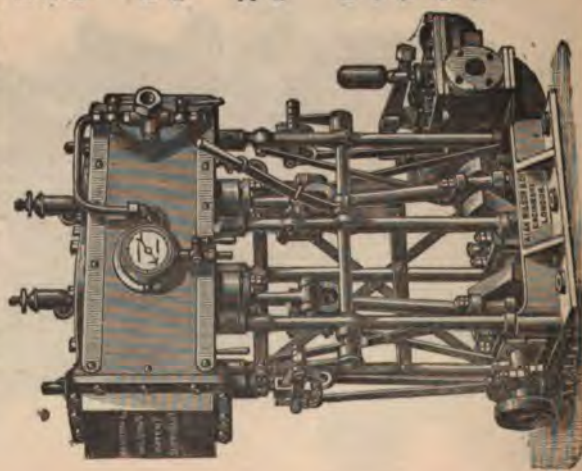
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DIMENSIONS OF DRY DOCK :

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DEPTH OF WATER OVER BLOCKS :

**Highest Springs, 28 feet; Ordinary Springs, 23 feet;
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Fitted with a Well at each end for Unshipping Rudders, &c.

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Are prepared to undertake the Docking, Shoreing, Cleaning Painting, and Repairing of Steam and Sailing Vessels (of any size).

Stern Frames, Rudder Frames, Tail-End Shafts, and all kinds of Forging, Engine, or Iron and Brass Cast Work, executed upon the shortest notice.

Telegraph—"CAISSON," CARDIFF.

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THE
**Mountstuart Shipbuilding,
Graving Docks, and
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No. 1 GRAVING DOCK.

Length 324 feet. Width 70 feet. Entrance Gates 45 feet.
Depth of Water at Ordinary Spring Tides 20 feet.

No. 2 GRAVING DOCK.

Length 420 feet. Width 105 feet. Entrance Gates 52 feet.
Depth of Water at Ordinary Spring Tides 26 feet.

This Dock will accommodate two vessels, alongside each other,
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Inner gates retain water to a depth of 20 feet (on blocks)
when necessary.

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PROPELLERS CAST UP TO 12 TONS

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Proprietors, R. P. CULLEY & CO., REFRESHMENT CONTRACTORS

PENARTH DOCK AND HARBOUR.

PORT OF CARDIFF.

DOCK ACCOMMODATION.

DOCK.

Length.	Width.	Area.	Length of Lock.	Width of Entrance.	Depth of Water Ordinary Spring Tides.	Depth of Water Neap Tides.
Feet. 2,900	Feet. 370	Acres. 23	Feet. 270	Feet. 60	Feet. 35	Feet. 25

BASIN.

Length.	Width.	Area.	Width of Entrance.	Depth of Water Ordinary Spring Tides.	Depth of Water Neap Tides.
Feet. 400	Feet. 330	Acres. 3	Feet. 60	Feet. 35	Feet. 25

Being a Tidal Dock, the gates can be all thrown open at high water from Sea to Dock for the ingress or egress of Shipping, thereby avoiding the great delay usually caused at other Docks by locking through.

There are fourteen coal tips in the Dock, and two in the basin for steamers of the largest dimensions. All the fourteen tips are on the high level; each is capable of shipping 150 tons per hour. The tips appropriated to large steamers are capable of shipping 300 tons per hour. Every provision has been made for shipping coal with the least possible breakage, with the greatest despatch, and at the minimum charge. There are sufficient cranes worked by hydraulic power for the discharge of ballast, iron ore, &c.; the same power is applied to the opening and closing of the dock gates, and for other purposes applicable to affording convenience and facilities in working the Dock, also in discharging, loading, and despatching vessels.

In addition to these considerations, it may be stated that from the depth of water in this Dock it is able to accommodate the largest class of ships.

PENARTH TIDAL HARBOUR.

	feet.
Length, measuring along the centre of the river	13,000
Frontage of Cardiff side, belonging to the Penarth Dock, Harbour and Railway Company	12,000
Frontage on Penarth side, belonging to the Penarth Dock, Harbour and Railway Company	3,000
Total	15,000

Average width at Water Line at High Water for the first reach of the river, 600 feet; length, 4,000; area, 55 acres.

Average width at Water Line in the same reach when the depth of Water is 15 feet, 280 feet; area, 26 acres.

Number of staiths for the shipment of coal, 10; room for 6 more. Each staith is capable of shipping 150 tons per hour.

Depth of Water in the Berths at High Water, ordinary spring tides, 30 feet. Depth of Water in the Berths at High Water, ordinary neap tides, 20 feet. Vessels up to 800 tons burthen take the ground, and are loaded with safety and despatch in this Harbour.

The maximum run of the tide is at the rate of about 2 knots per hour. Three Cranes for unloading Ballast and Iron Ore, each capable of unloading 50 tons per hour.

GENERAL INFORMATION.—This Dock and Harbour are, by the Taff Vale Railway and Rhymney Railway, in direct communication with the extensive coal fields of Glamorganshire and Monmouthshire, whence coals may be conveyed direct to this place of shipment. Communication by London and North Western, Great Western, and Midland Railways, is also afforded to all parts of the kingdom. Special arrangements have been made for the conveyance, from Liverpool and other large depots, of ships' stores which can be taken on the same trucks throughout, and direct to the ship's side.

Regular communication is established by Railway Steamers and Omnibuses between Cardiff Docks, the town of Cardiff, and Penarth Dock and Harbour.

Telegrams may be sent from the Penarth Dock and Harbour to all parts of the Kingdom. Further information may be obtained from the Secretary of the Taff Vale Railway Company, Cardiff; or of the Collector at the Office, Penarth Dock Head.

Dock Master .. WALTER MURRAY PENGELLEY. } Office at Penarth
Supt. and Collector JAMES EDWARDS. } Dock Head.

FELIXSTOWE DOCK AND RAILWAY

**Felixstowe Tidal Dock,
HARWICH HARBOUR.**

This deep water Dock is on the East side, about a mile in a Northerly direction above Landguard Fort.

VESSELS HAVE CONSTANT ACCESS AND LIE AFLOAT AT ALL TIMES.

The **South Quay** is 600 feet long, and **Steam Cranes** discharge the **Cargo** direct into the **Railway Wagons** for conveyance to all parts of Great Britain, or to the **Warehouses for Storage.**

An Extensive Area of Ground is available for Storing Timber, Deals, and other similar Goods.

The Company undertakes to Discharge or Load vessels entering the Dock; also the Warehousing or Storage, and Delivery of Cargoes.

GOOD BUNKER COAL AND FRESH WATER SUPPLIED.

Information as to Railway Rates, Charges, &c., may be obtained from

J. BUCKNALL COOPER,
Secretary and Manager.

Offices: **FELIXSTOWE, SUFFOLK.**

Telegraph—"SCOTT'S CODE."

The **PIER HOTEL** and **RAILWAY STATION** adjoin the **DOCK.**

TYNE IMPROVEMENT COMMISSION.

ALBERT EDWARD DOCK,
NORTHUMBERLAND DOCK,
RIVER COAL STAITHS, &c.

The **ALBERT EDWARD DOCK**—opened by their Royal Highnesses the **PRINCE** and **PRINCESS OF WALES**, in August, 1884—is adapted for Vessels of the largest class, and affords the best facilities for dealing with **IMPORT** and **EXPORT** Traffic of every description. It is nearer the Harbour Entrance, and has Sills five feet deeper than any other Dock on the Tyne.

The new **WAREHOUSE**, on the West Quay of the Dock, built for **Grain** and **General Merchandise** of all kinds, is **200** feet long by **100** feet broad, and contains six floors, each fitted with hydraulic machinery, and all necessary appliances; and spacious cellars suitable for the storage of provisions, oils, tallow, and other goods.

STEAM AND HYDRAULIC CRANES are provided for unloading and loading vessels direct to and from Truck or Warehouse with the greatest expedition.

Inside the Dock there is a large **COAL SHIPPING STAITH** at which vessels can bunker or load outward with Coal, after discharging their inward cargoes.

Water area of Dock 24 acres; Tidal Basin, $2\frac{3}{4}$ acres; Tidal Entrance, 80 feet wide; Lock, 350 feet long and 60 feet wide; depth of Water on Sills at High Water Spring Tides, 30 feet; at High Water Neap Tides, 26 feet. The Outer Lock Sill is 6 feet deeper than Sill of Entrance, being 21 feet below Low Water Spring Tides, so that Vessels drawing 20 feet can be locked in at Low Water.

Length of Quays inside Dock, 2,800 feet; of River Wall or Quay, 900 feet.

The **NORTHUMBERLAND DOCK**, 1,200 yards above the Albert Edward Dock Entrance, is the chief outlet for the Coalfields of Northumberland. It contains **16 Staiths** at which upwards of 2,680,000 tons of Coal have been shipped in twelve months.

Powerful **Steam Cranes**, capable of landing and shipping general Cargoes with the utmost despatch, and spacious **Brick Warehouses** for the Storage of Esparto, Hemp, Grain, Guano, Oil Cake, Chemicals, and damageable Goods of all kinds are provided.

Water Area of Dock, 55 acres ; Tidal Basin, $2\frac{1}{2}$ acres ; Tidal Entrance, 70 feet wide ; Lock 250 feet long and 52 feet wide ; Depth of Water on Sills at High Water Spring Tides, 24 feet ; at High Water Neap Tides, 20 feet.

Inside the Dock there are Jetties, with a Wharf behind 450 feet long by 100 feet broad.

Outside the Dock there is a River-side Quay, 1,100 feet long and 144 feet broad, having a depth of water alongside of 18 feet at Low Water Ordinary Spring Tides.

At the Commissioners' **RIVER STAITHS** (between Albert Edward and Northumberland Docks) the largest class of Steamers and Sailing Ships, requiring to load Coal and Coke without entering the Docks, can take in a full cargo and proceed direct to Sea at all times of tide.

The above Docks and Staiths have direct railway communication with the **Coalfields** of Northumberland and Durham, and with all parts of the Kingdom.

They are within twelve minutes' walk from Percy Main and North Shields Stations, on the Tynemouth Branch of the North Eastern Railway. The Tyne General Ferry Company's Steamers, running between Newcastle and Tynemouth, call every half hour at the Northumberland Dock Landing, close to the Dock Offices, and the Commissioners' Steam Ferry plies every quarter of-an-hour between South Shields and Whitehill Point Landing, situated *between the two Docks*.

Bordering on the Docks there are upwards of **270 acres of land** which offers superior and exceptional advantages for the establishment of **Timber Yards, Saw Mills, &c.**, and of **Manufactories and Industrial Works** in connection with the Shipping and Trade of the Port.

Bona-fide applications from **Capitalists, Manufacturers, and others**, to rent or lease portions of this land, addressed to the undersigned, will receive the favourable consideration of the Commissioners.

The Commissioners' **TIMBER PONDS**, at **Jarrow Slake**, opposite Northumberland Dock, having direct access from the river, cover an area of **89 acres**.

The **TYNE**, as the **Principal Coal Port** in the Kingdom, affords unsurpassed advantages to vessels arriving with Inward Cargoes and requiring Outward Freights.

The yearly exports of Coal and Coke have reached upwards of **9½ million tons**.

Ballast is quickly discharged or loaded from or into Vessels by the Commissioners' S.S. Ballast Hopper Barges.

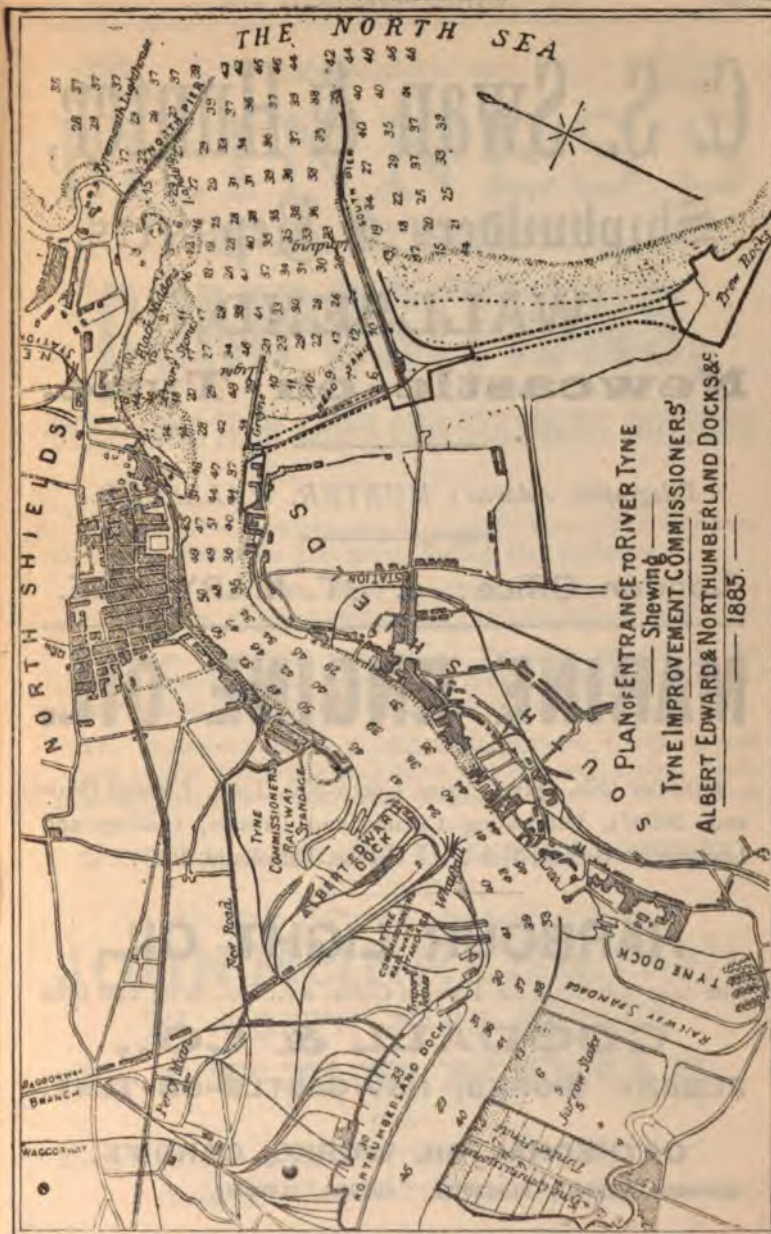
Excellent facilities exist in the Port for discharging and loading Vessels, and for warehousing and storing all descriptions of General Merchandise, Timber, Grain, &c.

Vessels "calling" in the Tyne to "**Bunker**" at the Commissioners' Docks and Staiths, where they can obtain the best **Northumberland Steam Coal** on the most favourable terms, have the benefit of greatly modified Dues.

Information as to Rates and Charges may be obtained on application to the Commissioners' Traffic Manager, Northumberland Dock, Percy Main, or to

ROBERT URWIN,
Secretary.

TYNE IMPROVEMENT COMMISSIONERS' OFFICES,
NEWCASTLE-UPON-TYNE,
September, 1887.



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Newcastle-on-Tyne.

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Vessels coated with these Compositions present a *smooth slippery surface*, which unquestionably conduces to *increase of speed*.

They are extensively used in all the great seaports of the United Kingdom, as well as in those of India, America, Australia, and in all the Maritime Countries of Europe.

The Manufacturers beg to caution Shipowners, Captains, and others against colourable imitations of these well-known Compositions, and to see that every package bears our Trade Mark Label.

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a faithful record of all Shipping, Commercial, and current events of the day; for that purpose responsible Agents have been appointed at all the principal seaports at home and abroad, also Correspondents at all the chief commercial centres, from whom the latest and most reliable EXCLUSIVE Shipping and Commercial intelligence is obtained. Daily telegrams are received from all the leading Continental Commercial centres, also tri-weekly from the East, &c.

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